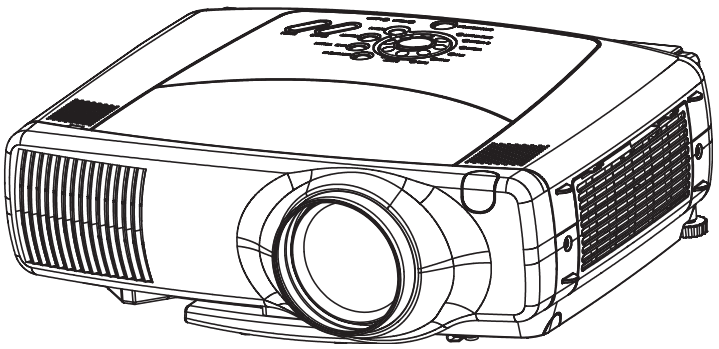
HITACHI

SERVICE MANUAL

No. 0526

CPX880(C8X)
CPX885(C8XM)



Caution

Be sure to read this manual before servicing. To assure safety from fire, electric shock, injury, harmful radiation and materials, various measures are provided in this HITACHI Multimedia LCD Projector. Be sure to read cautionary items described in the manual to maintain safety before servicing.

Service Warning

1. When replace the lamp, to avoid burns to your fingers. The lamp becomes too hot.
2. Never touch the lamp bulb with a finger or anything else. Never drop it or give it a shock. They may cause bursting of the bulb.
3. This projector is provided with a high voltage circuit for the lamp. Do not touch the electric parts of power unit (main), when turn on the projector.
4. Do not touch the exhaust fan, during operation.
5. The LCD module assembly is likely to be damaged. If replacing to the LCD module assembly, do not hold the FPC of the LCD module assembly.
6. Use the cables which are included with the projector or specified.

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SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

Multimedia LCD Projector

November 2002 Digital Media Division

1. Features

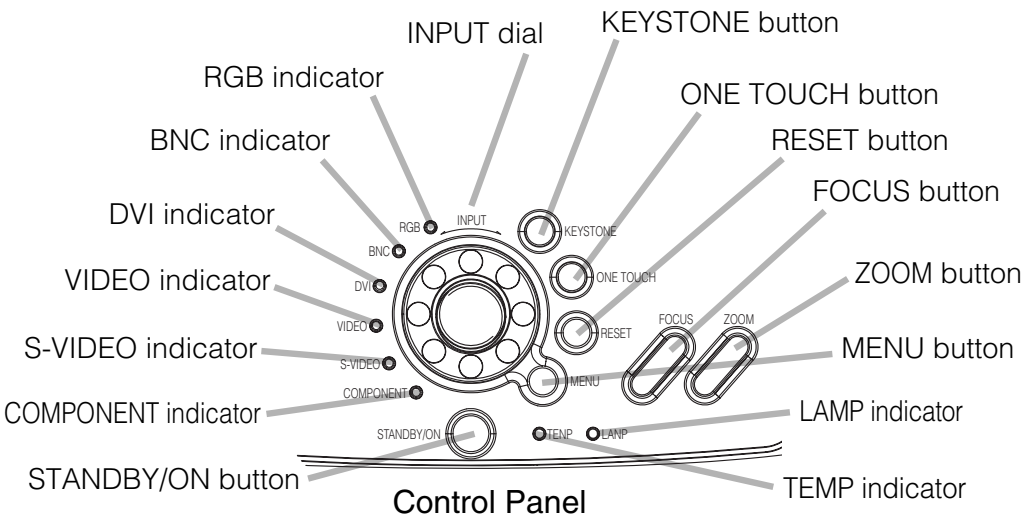
- High brightness
- Full connectivity (BNC)
- Easy operation
- My screen
- Convenient lamp replacement

2. Specifications

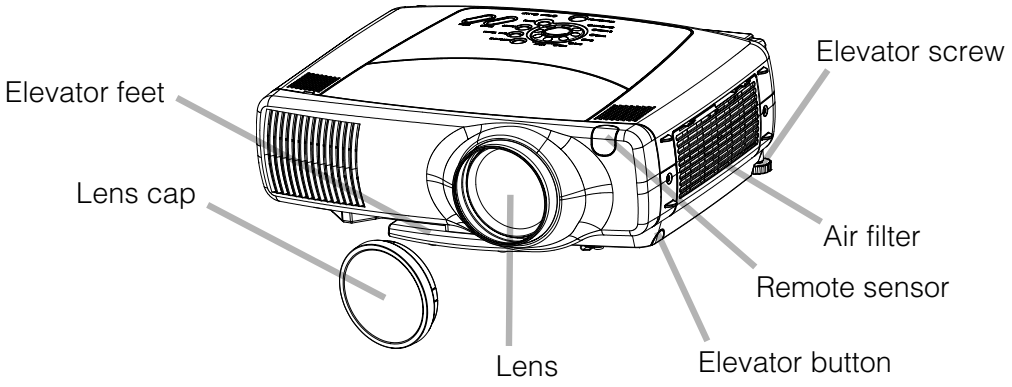
Liquid crystal panel	Drive system		TFT active matrix	
	Panel size		0.99 inches	
	Number of pixels		1024 (H) × 768 (V)	
Lamp			275W UHB	
RGB signal input	RGB IN	1	Video: Analog 0.7Vp-p, 75Ω terminator H/V. sync.: TTL level (positive/negative) Composite sync.: TTL level D-sub 15-pin shrink jack	
		2		
	Digital input	Signal	Type: T.M.D.S Amplitude differential signal: DC: 150~1200mV AC: 1.56Vp-p Amplitude signal: TTL level	
	AUDIO IN	1	200mVrms, 57kΩ Stereo mini jack	
		2		
Video signal input	COMPOSITE VIDEO	System	NTSC, NTSC4.43, PAL (BGDHI), SECAM, PAL-M, PAL-N, PAL60	
			1.0Vp-p, 75Ω terminator RCA jack	
	S-VIDEO	Y	1.0Vp-p, 75Ω terminator	
		C	0.3Vp-p, 75Ω terminator	
			Mini DIN 4-pin jack	
	COMPONENT VIDEO	System	525i (480i), 525p (480p), 625i (575i), 720p, 1080i/1035i	
		Y	1.0Vp-p, 75Ω terminator	RCA jack ×3, BNC ×3
		C_B/C_R	0.7Vp-p, 75Ω terminator	
		P_B/P_R	0.7Vp-p, 75Ω terminator	
	AUDIO IN	L	200mVrms, 57kΩ (max. 3.0Vp-p) RCA jack ×2	
		R		
Signal output	RGB OUT		Video: Analog 0.7Vp-p, 75Ω output impedance (positive) H/V. sync.: TTL level (positive/negative) Composite sync.: TTL level D-sub 15-pin shrink jack	
	AUDIO OUT		0~200mVrms, output impedance 1kΩ Stereo mini jack	
Audio signal	Input		200mVrms, 57kΩ	
	Output (Speaker)		1W +1W (stereo)	
Power supply			AC100~120V/4.7A, AC220~240V/2.0A	
Power consumption			430W	
Weight			5.7kg (12.6lbs)	
Temperature range			Operation : 0~35°C Storage : -20~60°C	
Accessories			Remote control transmitter × 1 RGB cable × 1 Video/Audio cable × 1 USB cable × 1 RS-232C adapter (15P-9P) × 1	POWER cord × 3 Battery × 2 Carrying bag × 1 Operator's manual × 1 Safety manual × 1

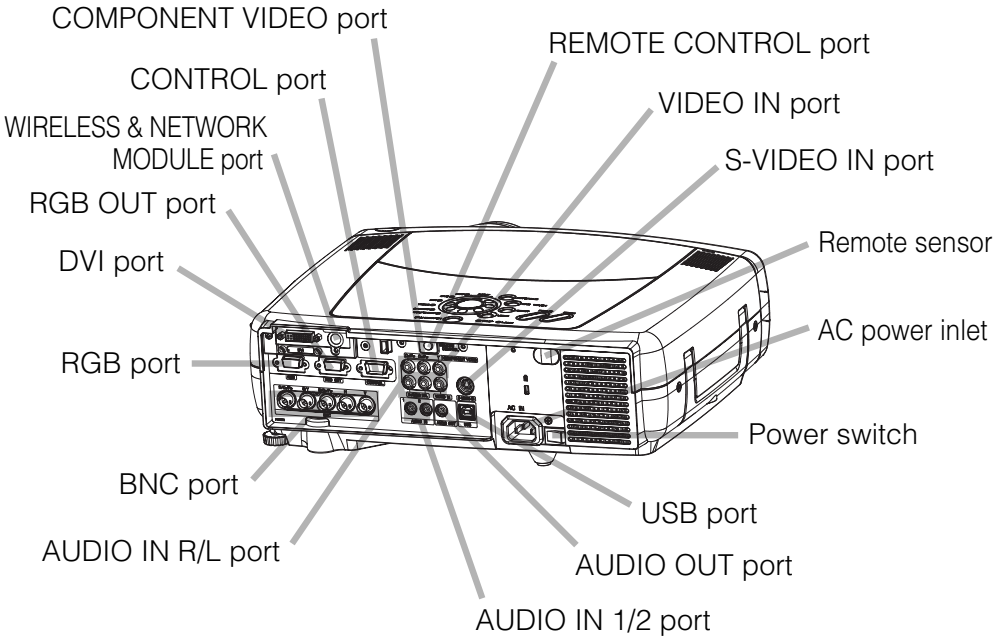
3. Names of each part

● Parts names

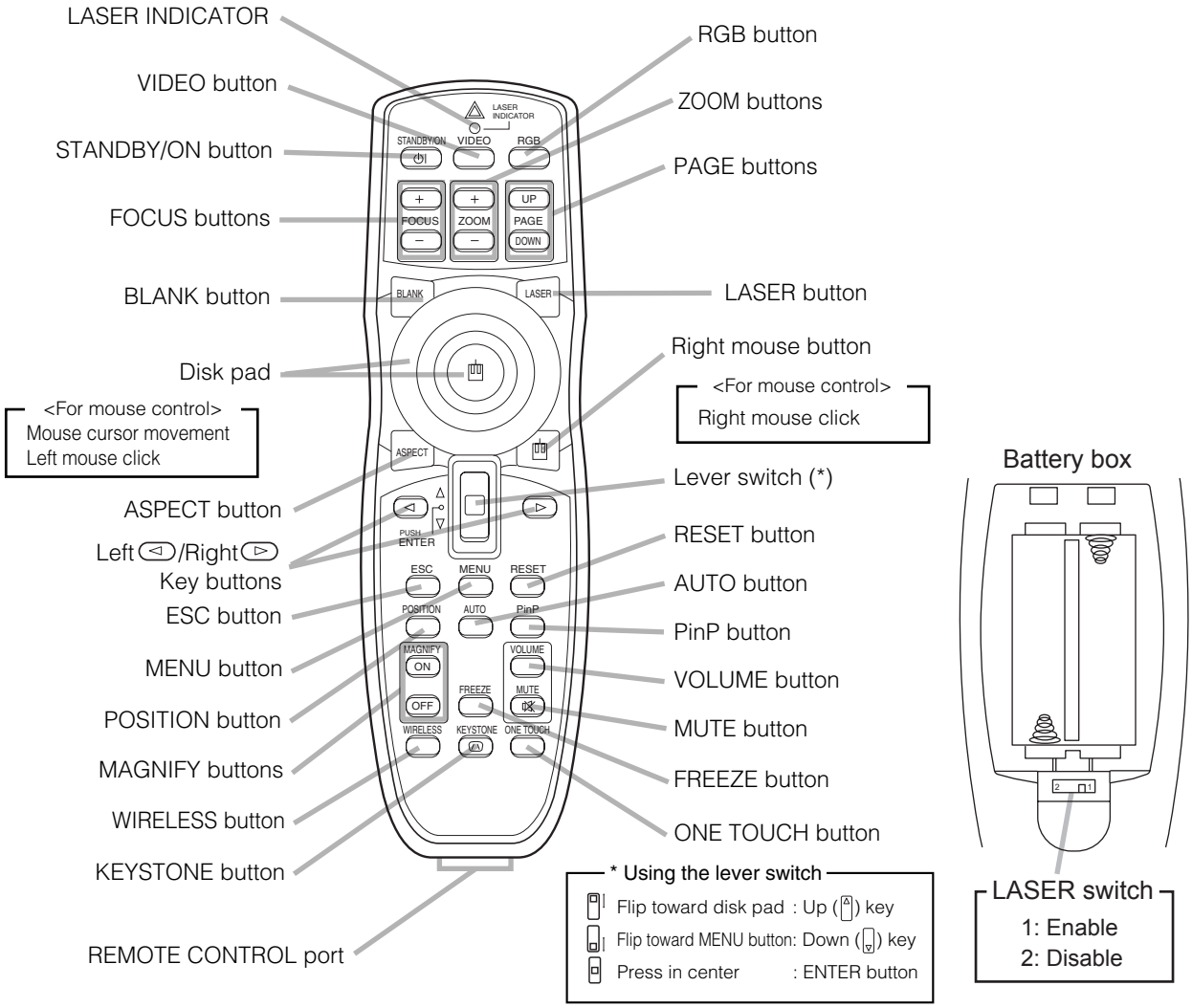


Control Panel



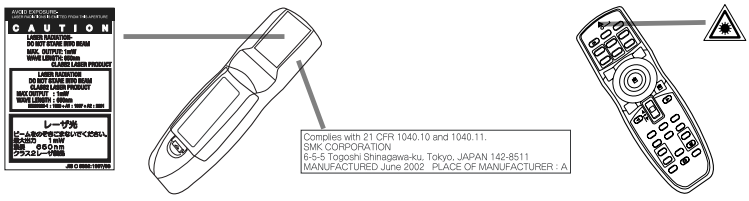


● Remote control transmitter



⚠ WARNING • The laser pointer of the remote control transmitter is used in place of a finger or rod. Never look directly into the laser beam outlet or point the laser beam at other people. The laser beam can cause vision problems.

⚠ CAUTION • Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.


CAUTION
Complies with 21 CFR 1040.10 and 1040.11.
SMK CORPORATION
6-5-5 Togoshi Shinagawa-ku, Tokyo, JAPAN 142-8511
MANUFACTURED June 2002 PLACE OF MANUFACTURER : A

ATTENTION Precautions to observe when using the remote control

- Do not disassemble the remote control.
- Do not drop or otherwise expose the remote control to physical impact.
- Do not get the remote control wet or place it on wet objects. Doing so may result in malfunction.
- Do not place the remote control near the projector's lens, fan, or vents.
- Remove the batteries from the remote control and store them in a safe place if you won't be using the remote control for an extended period.
- Replace the batteries whenever the remote control starts to malfunction.
- When strong light, such as direct sunlight or light from an extremely close range (such as from an inverter fluorescent lamp), hits the projector's remote sensor, the remote control may cease to function. Adjust the direction of the projector to keep light from directly hitting the projector's remote sensor.

4. Adjustment

4-1 Before adjusting

4-1-1 Adjustment menu

1. Before starting adjustment, warm up the projector for about 10 minutes. (Blank white)
2. Set Zoom Wide to Max. and project an image a distance of more than 40 inches.
3. Normalizing the video adjustment.
   (Press the [MENU] button of the Remote control transmitter to display the Setup menu, then press the [RESET] button. And select the [DEFAULT].)
4. Perform all adjustments from the Adjustment menu.
   Perform the following operations to display the Adjustment menu.
   a. Press the [MENU] button of the Remote control transmitter (the Setup menu will appear).
   b. Next, press the [RESET] button one time. And press the [RESET] button again for 5 seconds or more (the Adjustment menu will appear).

4-1-2 Required adjustment

Relation between the replacement part and required adjustment are shown in Table 4-1-2.

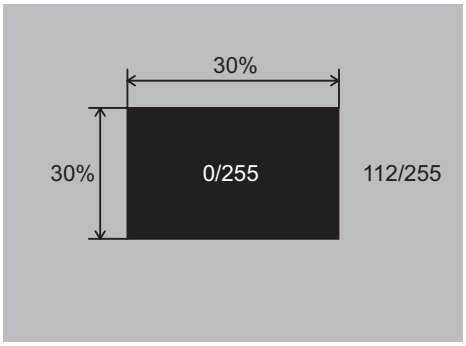
Tabel 4-1-2: Required adjustment

Required adjustment	Replaced part			
	Dichroic optics unit	LCD/LENS prism assembly	PWB assembly drive	Lamp unit
Ghost (Chap.4-2)	○	○	○	△
Flicker (Chap.4-3)	×	○	○	×
NRSH (Chap.4-4)	×	○	○	×
White balance (Chap.4-5)	○	○	○	△
Color uniformity (Chap.4-6)	○	○	○	△

○: need △: recommend ×: no need

4-2 Ghost adjustment

Signals for internal adjustment

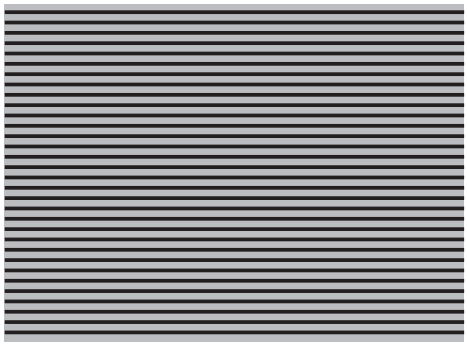


Adjustment procedure

1. Use DAC-P - GHOST - R: in the Adjustment menu to adjust so that R color ghost is at a minimum.
   (Press the [RESET] button, then raise the value. When a ghost appears to the left of a vertical line, reduce the value by 2 steps.)
2. In the same way, use DAC-P - GHOST-G: in the Adjustment menu to adjust so that G color ghost is at a minimum.
3. In the same way, use DAC-P - GHOST-B: in the Adjustment menu to adjust so that B color ghost is at a minimum.

4-3 Flicker adjustment (V.COM adjustment)

Signals for internal adjustment

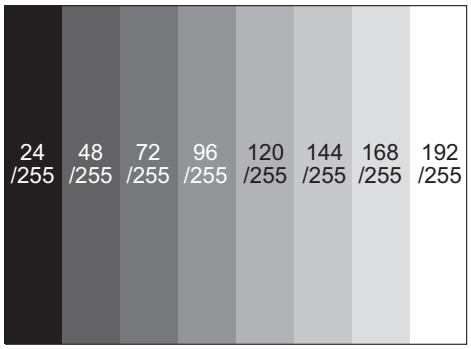


Adjustment procedure

1. Make this adjustment after completing the adjustment in 4-2 Ghost adjustment.
2. Use DAC-P - V.COM - R: in the Adjustment menu to adjust so that the flicker at the center of the screen is less than the flicker at the periphery.
   (When the flicker is about the same across the whole screen, adjust so that the flicker at the center of the screen is somewhat less than elsewhere.)
3. In the same way, use DAC-P - V.COM-G: in the Adjustment menu to adjust the G color flicker.
4. In the same way, use DAC-P - V.COM-B: in the Adjustment menu to adjust the B color flicker.

4-4 NRSH adjustment (vertical stripe adjustment)

Signals for internal adjustment



Adjustment procedure

1. Make this adjustment after completing the adjustment in 4-3 Flicker adjustment.
2. Use DAC-P - NRSH - R: in the Adjustment menu to adjust so that the vertical lines spaced every 12 dots are as inconspicuous as possible.
   (Reduce the adjustment value when black stripes appear in the 2nd or 3rd tone from the black side. Note that when the adjustment value is lowered, white stripes may appear in the 2nd or 3rd tone from the bright side. Should this happen, adjust so that the stripes are as inconspicuous as possible.)
3. In the same way, use DAC-P - NRSH - G: in the Adjustment menu to adjust vertical stripes of G color.
4. In the same way, use DAC-P - NRSH - B: in the Adjustment menu to adjust vertical stripes of B color.

4-5 White balance adjustment (visual inspection)

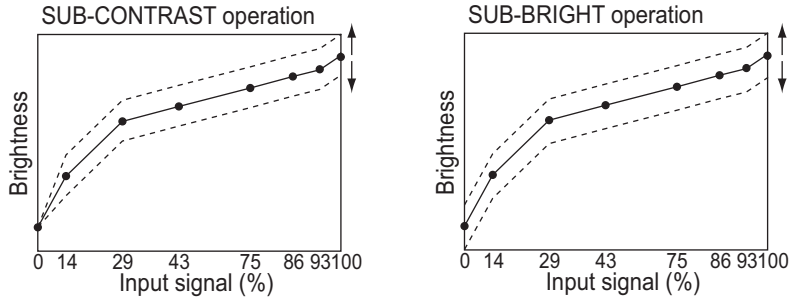
Preparations

1. Perform these adjustments after the NRSH adjustment described in Section 4-4.
2. Reset gamma correction before adjustment.
   - Place the cursor on [GAMMA] in the Adjustment menu, press the [RESET] key and select [DEFAULT].

Adjustment procedure

1. First, adjust the G color.
2. Select GAMMA, SUB-CONTRAST, and G: in the Adjust menu. If the background is white solid, press the [ENTER] key on the Remote control transmitter to change to [G] monochrome in the 28-tone grayscale.
3. Adjust GAMMA, SUB-CONTRAST, and G: in the Adjust menu so that brightness of 28 steps is best.
4. Don't adjust GAMMA, SUB-BRIGHT, and G: in the Adjust menu. Because we want to keep the best contrast ratio.
5. Then adjust colors R and B.
6. Select GAMMA, SUB-CONTRAST, and G: in the Adjust menu. If the background is white solid, press the [ENTER] key on the Remote control trasmitter to change to [W] monochrome in the 28-tone grayscale.
7. Adjust GAMMA, SUB-BRIGHT, R: and B: in the Adjust menu so that low-brigtness white balance is best.
8. Adjust GAMMA, SUB-CONTRAST, R: and B: in the Adjust menu so that middle-brightness white balance is best.
9. Repeat steps 7 to 8 above, and adjust so that brightness white balance of 28 steps is best.

Adjustment operations (reference)

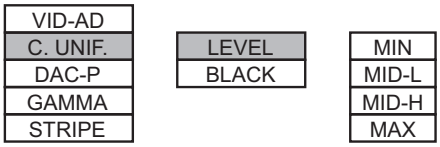


4-6 Color uniformity adjustment

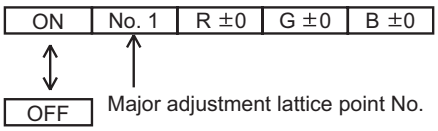
Preparations

1. Perform these adjustments after the white balance adjustment described in Section 4-5.
2. Make a color uniformity adjustment for the following four tones.
   - MIN tone (approx. 7% input signal)
   - MID-L tone (approx. 18% input signal)
   - MID-H tone (approx. 50% input signal)
   - MAX tone (approx. 75% input signal)
3. Place the cursor on the tone to be adjusted in the Adjust menu and press the [▶] key. This displays the Adjust Tone menu at the bottom of the screen. Select the major adjustment lattice point No. and color, and then adjust them.
4. The major adjustment lattice point numbers (a total of 17 points) corresponds to the major adjustment lattice point positions in the diagram on the right. The color uniformity of the entire screen can be adjusted by adjusting the white balance for each of the points starting in order from the low numbers.
5. Adjustment point No.1 should not be adjusted, because it controls the brightness of the entire screen.
6. To temporarily turn correction off, place the cursor on “ON” in the Adjust Tone menu and press the [▼] key. To turn it on again, place the cursor on OFF in the Adjust Tone menu and press the [▲] key.
7. Although this adjustment can also be made using internal signals, we will here use the [ENTER] key on the Remote control transmitter to select the following two signals.
   - Solid monochrome adjustment color (use G color adjustment when a color differential meter is used).
   - Solid white (use for adjustment other than above).
8. Reset color-shading correction before adjustment.
   - When 4 tones and all colors are to be reset, place the cursor on [C.UNIF.] in the Adjustment menu, press the [RESET] key and select [DEFAULT].
   - When only 1 tone is to be reset, place the cursor on the tone to be reset, press the [RESET] key and select [DEFAULT].
   - Single tone and monochrome resets cannot be performed.

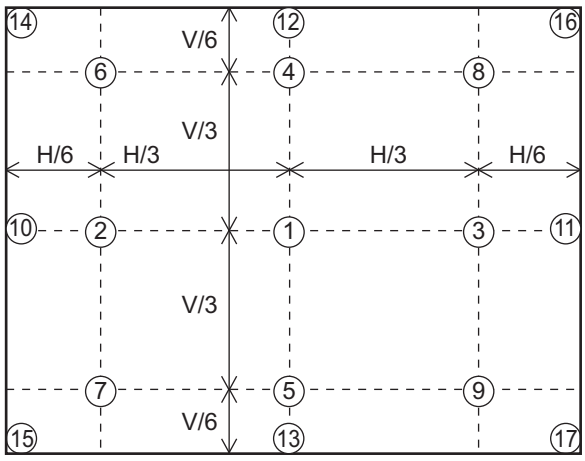
Adjust menu



Adjust Tone menu



Major adjustment lattice point position



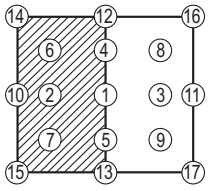
Adjustment procedure 1
(when a color differential meter is used)

1. First adjust [MID-L] tone [G:].
2. Select adjustment point [No.2][G:].
   When the background is not [G] monochrome, press the [ENTER] key on the Remote control transmitter to change to solid [G] monochrome.
3. Measure the illumination at adjustment points No. 2, No.3, No.10 and No.11.
   The values should be:
   No.2 = Y2 [lx] No.10 = Y10 [lx]
   No.3 = Y3 [lx] No.11 = Y11 [lx]
4. No.2 and No.3 adjustment point have the average of Y2 and Y3.
   Y2 = (Y2 + Y3) / 2 ± 2 [%]
   Y3 = (Y2 + Y3) / 2 ± 2 [%]
5. No.10 and No.11 adjustment point have the average of Y10 and Y11.
   Y10 = (Y10 + Y11) / 2 ± 2 [%]
   Y11 = (Y10 + Y11) / 2 ± 2 [%]
6. Then adjust [MID-L] tone [R] and [B].
   When the background is [G] monochrome, press the [ENTER] key on the Remote control transmitter to change to solid white.
7. Measure the color coordinates of adjustment point [No.1] and make a note of them.
   Assume that they are x = x1, y = y1.
   Note: When the CL-100 color and color difference meter is used, the [△](delta) mode is convenient. When adjustment point [No.1] color coordinate has been selected, set the slide switch on the side to [△](delta) while holding down the [F] button on the front panel. The measurement shown after this displays the deviation from measurement point 1.
8. Measure the color coordinates of measurement point [No.2] and adjust [No.2][R:] and [B:] so that the coordinates are as follows.
   x = x1 ± 0.005 , y = y1 ± 0.010 (Target)
   x = x1 ± 0.020 , y = y1 ± 0.050
9. Similarly, measure adjustment points [No.3] to [No.17] and adjust their color coordinates starting in order from the small number points.
   This completes adjustments required for [MIN].
   Note: Since excessive correction may lead to a correction data overview during internal calculations, use the following values for reference.
   [No.2] to [No.5] ± 40 or less
   [No.6] to [No.9] ± 50 or less
   [No.10] to [No.13] ± 70 or less
   [No.14] to [No.17] ± 120 or less
10. Then adjust [MIN] tone [G] so that the adjustment data set three times as much as [MID-L] tone [G].
    This completes [G] color adjustments.
11. Then adjust [MIN] tone [R] and [B].
    Select [No.2] [B:] and press the [ENTER] key on the Remote control transmitter to change to solid white.
12. Measure the color coordinates of adjustment point [No.1] and make a note of them.
    Assume that they are x = x1, y = y1.
13. Now measure the color coordinates of measurement point [No.2] and adjust [No.2][R:] and [B:] so that the coordinates are as follows.
    x = x1 ± 0.005 , y = y1 ± 0.010 (Target)
    x = x1 ± 0.020 , y = y1 ± 0.040
14. Similarly, measure adjustment points [No.3] to [No.17] and adjust their color coordinates starting in order from the small number points.
    This completes [MIN] tone adjustments.
15. Now make similar adjustments for [MID-H] tone.
    (Adjust [MID-H] tone [G] so that the adjustment data set half as many as [MID-L] tone [G].)
16. Now make similar adjustments for [MAX] tone.
    Don't adjust [MAX] tone [G].
    Adjust [MAX] tone [R], [B] only.

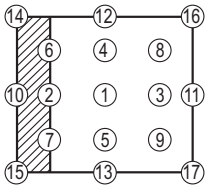
Adjustment procedure 2
(visual inspection)

1. First adjust [MIN] tone [G:].
2. Select [No.2] [G:].
   If the background is [G] monochrome, press the [ENTER] key on the Remote control transmitter to change to solid white.
3. View measurement point [No.2] and [No.3].
   Lower the [G] color intensity only of the color point whose [G] color is more intense than measurement point [No.1].
4. View measurement point [No.10] and [No.11].
   Lower the [G] color intensity only of the color point whose [G] color is more intense than measurement point [No.1], and raise the intensity of the point whose color intensity is lower than measurement point [No.1].
5. Now adjust the [MIN] tone for colors [R] and [B].
6. View measurement points [No.2], [No.3], [No.10] and [No.11]. Adjust the [R] and [B] of each measurement point so that they have the same color as measurement point [No.1].
   Adjustment technique:
   First, adjust [B:] of the point whose color is to be adjusted so that it approximates that of [No.1]. If [R:] is low at this time, the image will have cyan cast, in which case [R:] is increased. On the other hand, if [R:] is excessive, the image will have a magenta cast, in which case [R:] is decreased.
   Overall, a cyan cast makes it easy to see color shading.
7. Next, view measurement points [No.4], [No.5], [No.12], [No.13] and make similar adjustments.
8. Then adjust measurement points [No.6], [No.7], [No.8], [No.9], [No.14], [No.15], [No.16] and [No.17]. This completes the [MIN] tone adjustments.
9. Make similar another three tones as described in steps 1 to 8 above.

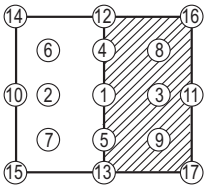
No. 2 deviation range



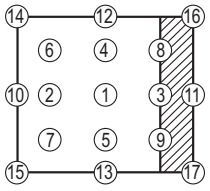
No. 10 deviation range



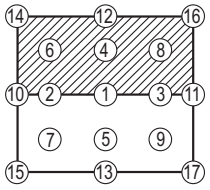
No. 3 deviation range



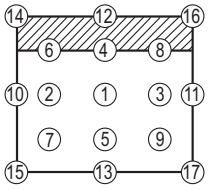
No. 11 deviation range



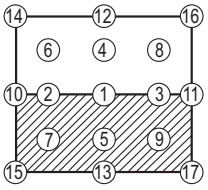
No. 4 deviation range



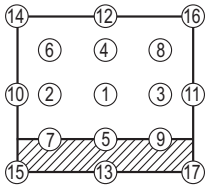
No. 12 deviation range



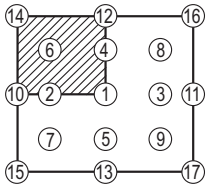
No. 5 deviation range



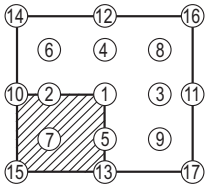
No. 13 deviation range



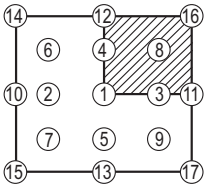
No. 6 deviation range



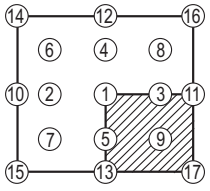
No. 7 deviation range



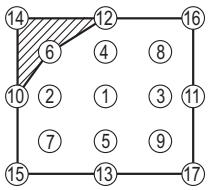
No. 8 deviation range



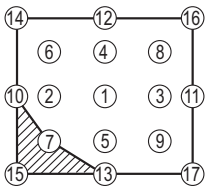
No. 9 deviation range



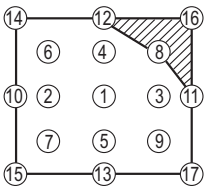
No. 14 deviation range



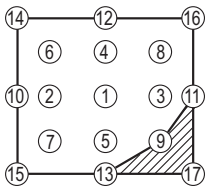
No. 15 deviation range



No. 16 deviation range

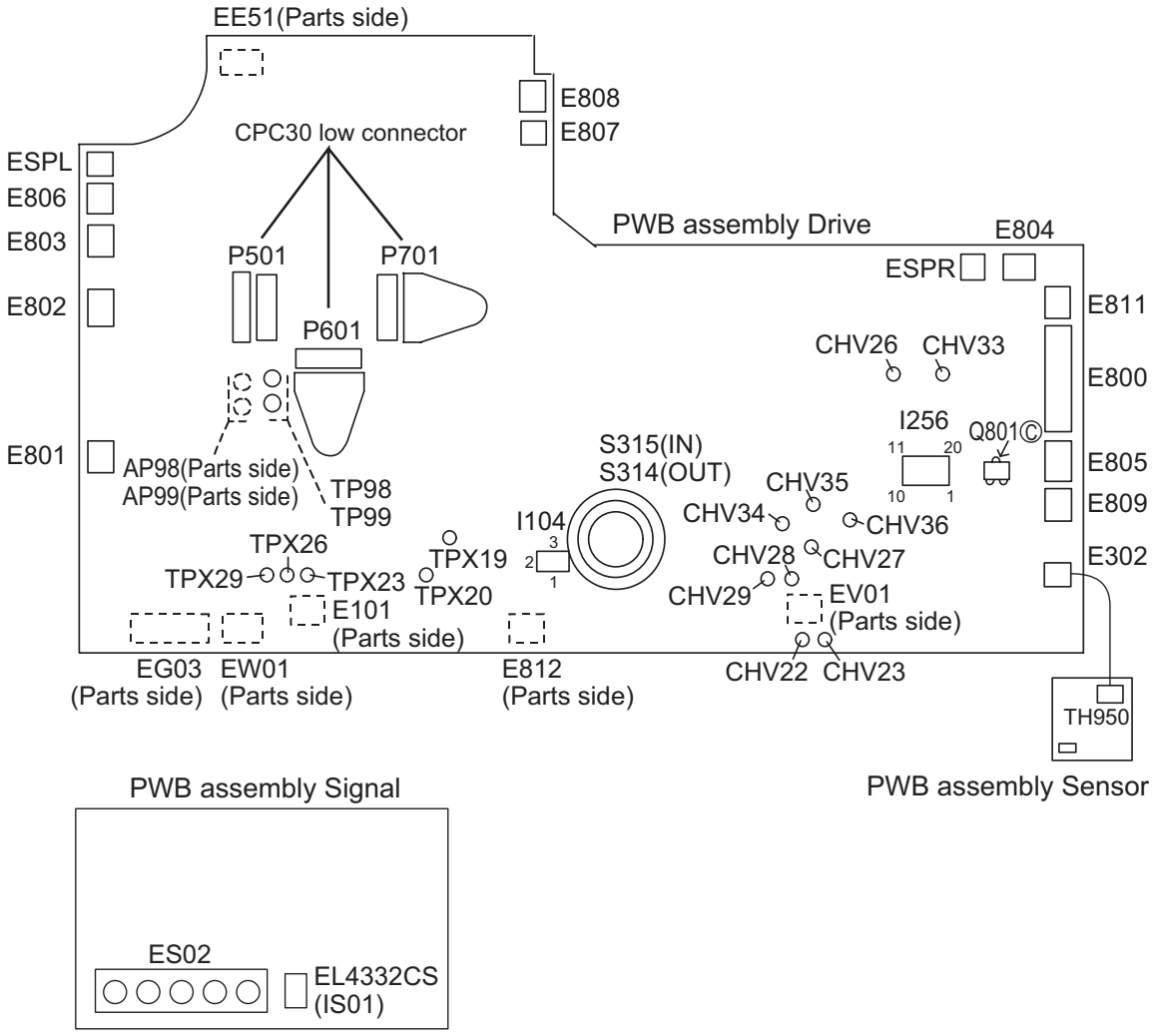


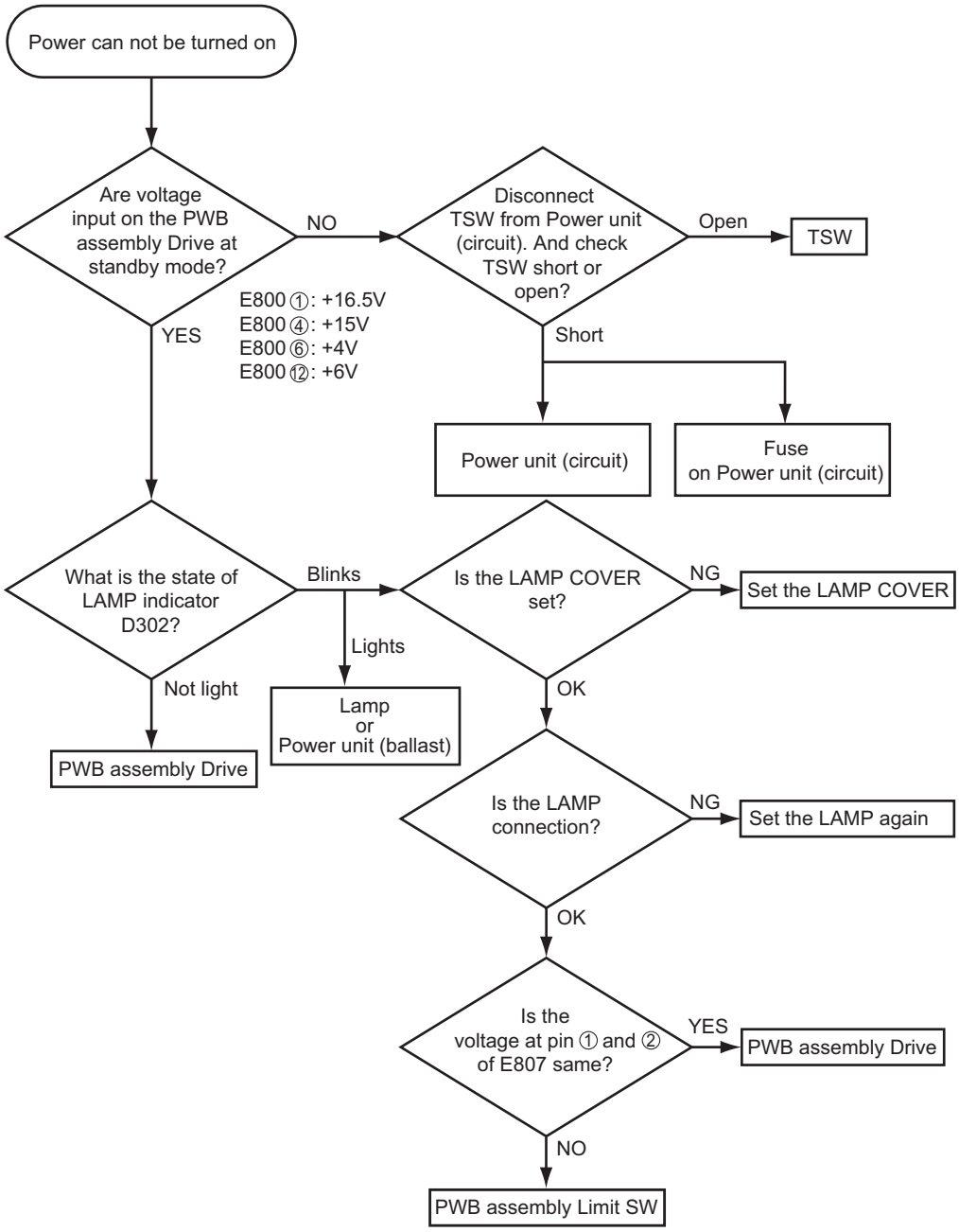
No. 17 deviation range

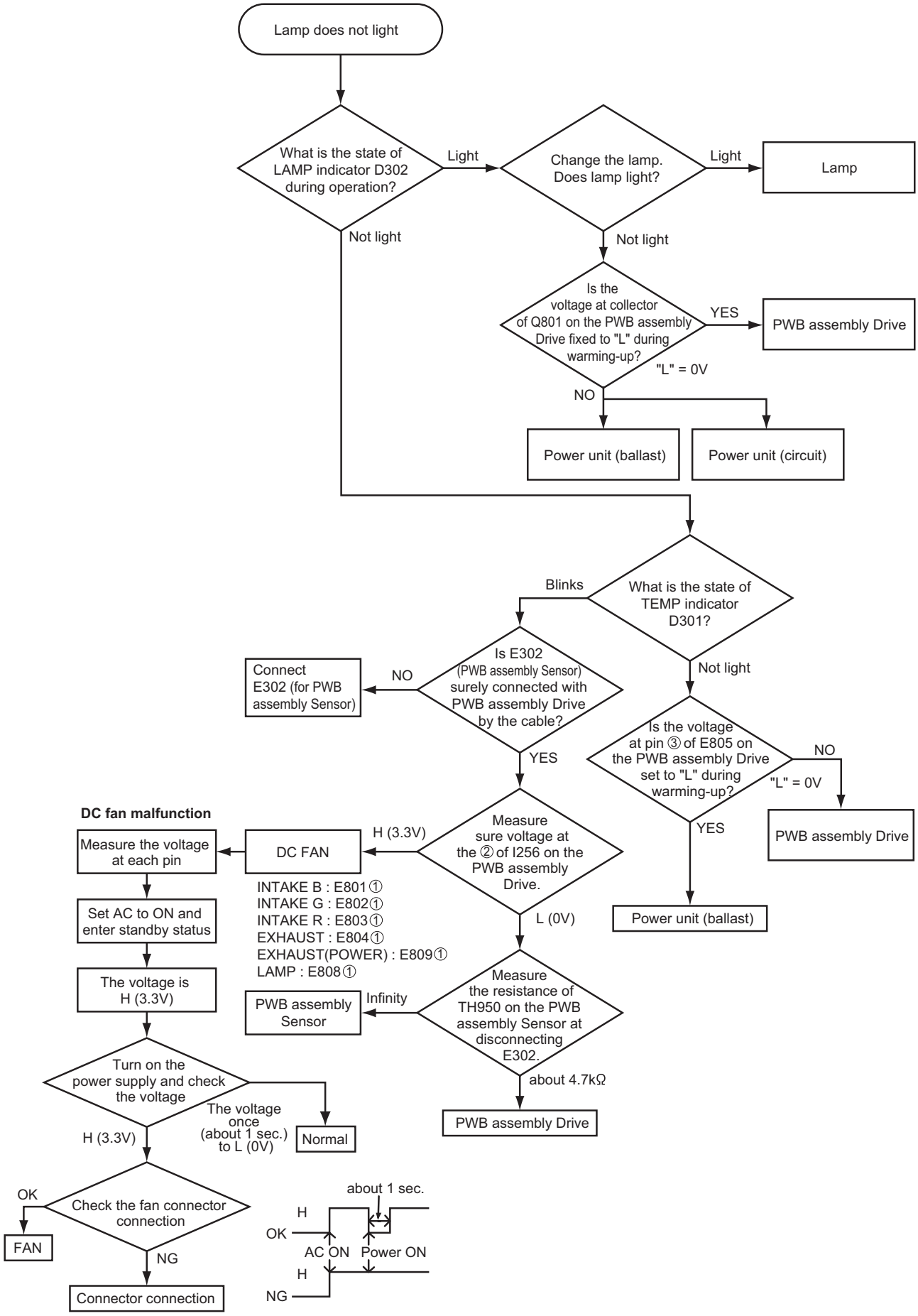


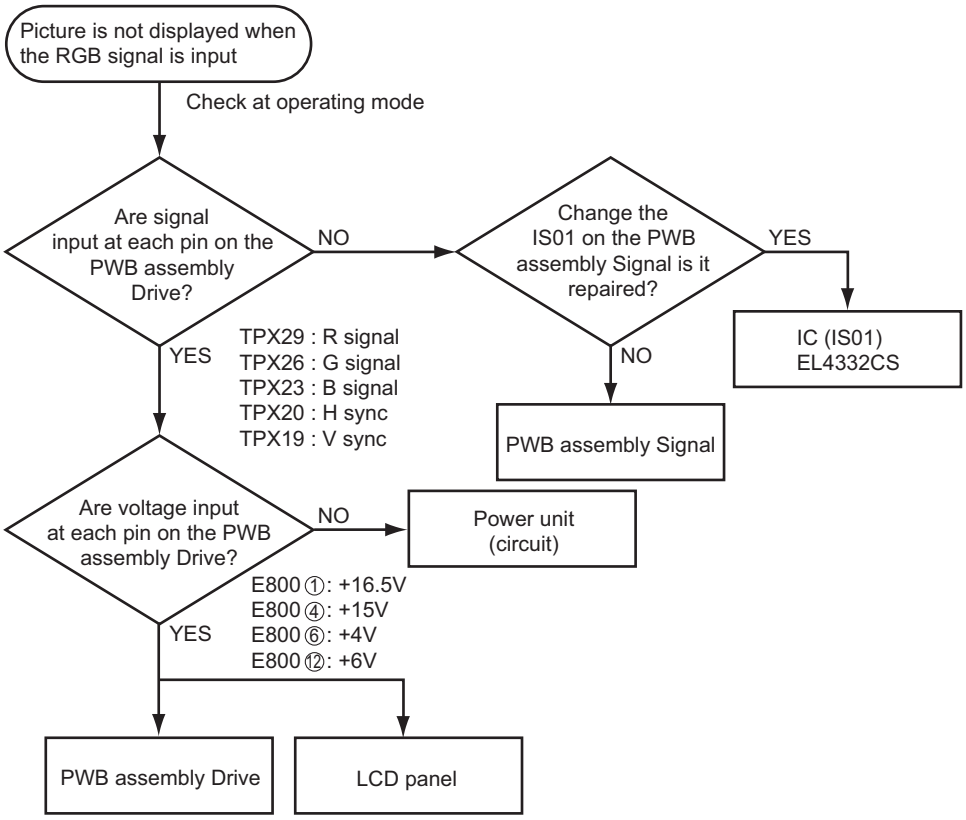
5. Troubleshooting

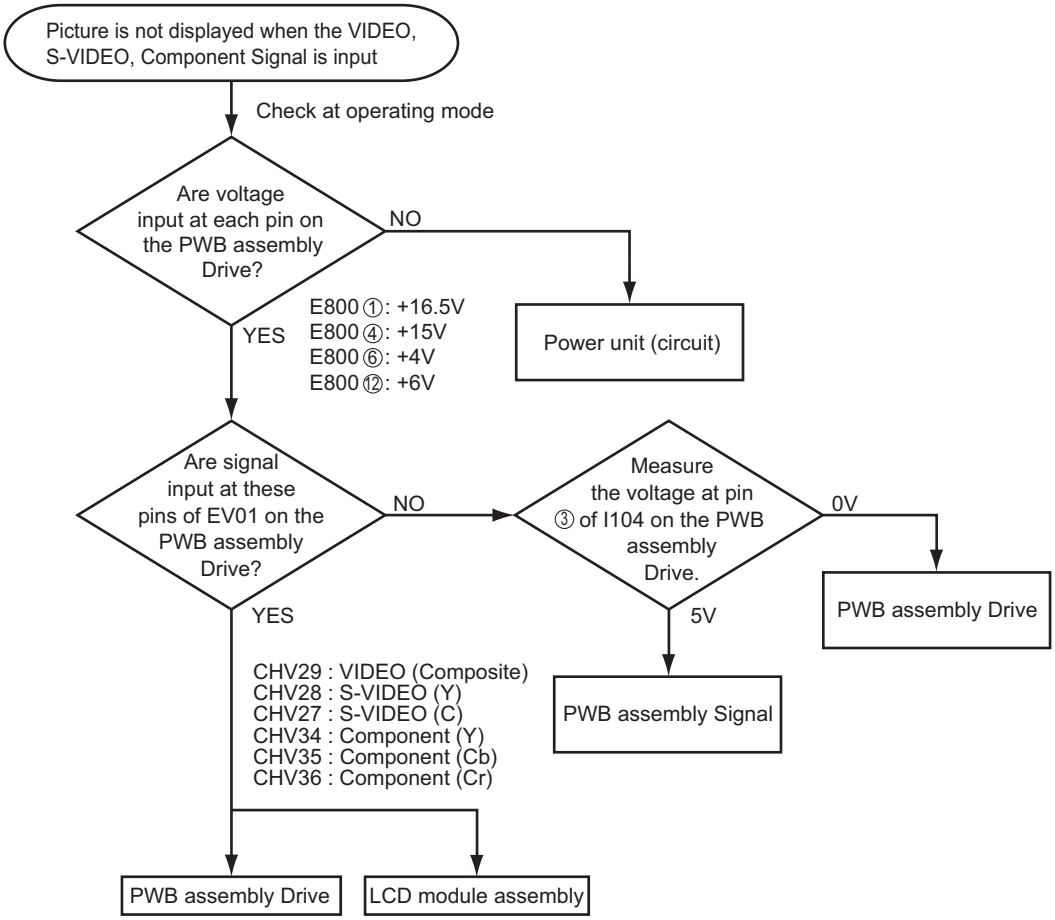
Check points at trouble shooting

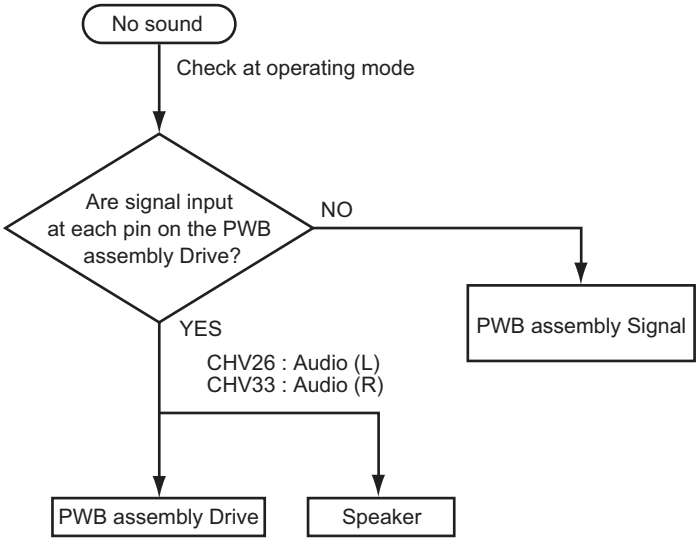


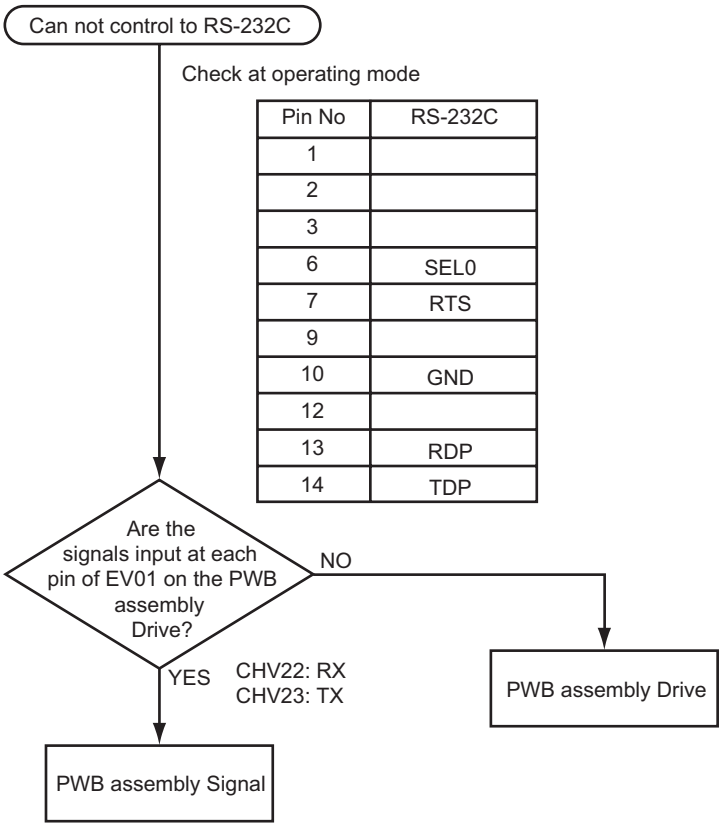

Power can not be turned on
Are voltage input on the PWB assembly Drive at standby mode?
NO
Disconnect TSW from Power unit (circuit). And check TSW short or open?
Open
TSW
E800 ①: +16.5V
E800 ④: +15V
E800 ⑥: +4V
E800 ⑫: +6V
YES
Short
Power unit (circuit)
Fuse on Power unit (circuit)
What is the state of LAMP indicator D302?
Blinks
Is the LAMP COVER set?
NG
Set the LAMP COVER
Lights
Not light
Lamp or Power unit (ballast)
PWB assembly Drive
OK
Is the LAMP connection?
NG
Set the LAMP again
OK
Is the voltage at pin ① and ② of E807 same?
YES
PWB assembly Drive
NO
PWB assembly Limit SW


Lamp does not light
What is the state of LAMP indicator D302 during operation?
Light
Change the lamp. Does lamp light?
Light
Lamp
Not light
Not light
Is the voltage at collector of Q801 on the PWB assembly Drive fixed to "L" during warming-up?
YES
PWB assembly Drive
"L" = 0V
NO
Power unit (ballast)
Power unit (circuit)
What is the state of TEMP indicator D301?
Blinks
Not light
Is E302 (PWB assembly Sensor) surely connected with PWB assembly Drive by the cable?
NO
Connect E302 (for PWB assembly Sensor)
YES
Is the voltage at pin ③ of E805 on the PWB assembly Drive set to "L" during warming-up?
NO
"L" = 0V
PWB assembly Drive
YES
Power unit (ballast)
DC fan malfunction
Measure sure voltage at the ② of I256 on the PWB assembly Drive.
H (3.3V)
L (0V)
DC FAN
INTAKE B : E801①
INTAKE G : E802①
INTAKE R : E803①
EXHAUST : E804①
EXHAUST(POWER) : E809①
LAMP : E808①
Measure the voltage at each pin
Set AC to ON and enter standby status
The voltage is H (3.3V)
Turn on the power supply and check the voltage
The voltage once (about 1 sec.) to L (0V)
Normal
H (3.3V)
Measure the resistance of TH950 on the PWB assembly Sensor at disconnecting E302.
Infinity
PWB assembly Sensor
about 4.7kΩ
PWB assembly Drive
OK
Check the fan connector connection
FAN
NG
Connector connection
about 1 sec.
H
OK
AC ON
Power ON
H
NG


Picture is not displayed when the RGB signal is input
Check at operating mode
Are signal input at each pin on the PWB assembly Drive?
NO
Change the IS01 on the PWB assembly Signal is it repaired?
YES
IC (IS01) EL4332CS
NO
PWB assembly Signal
YES
TPX29 : R signal
TPX26 : G signal
TPX23 : B signal
TPX20 : H sync
TPX19 : V sync
Are voltage input at each pin on the PWB assembly Drive?
NO
Power unit (circuit)
E800 ①: +16.5V
E800 ④: +15V
E800 ⑥: +4V
E800 ⑫: +6V
YES
PWB assembly Drive
LCD panel


Picture is not displayed when the VIDEO, S-VIDEO, Component Signal is input
Check at operating mode
Are voltage input at each pin on the PWB assembly Drive?
NO
Power unit (circuit)
E800 ①: +16.5V
E800 ④: +15V
E800 ⑥: +4V
E800 ⑫: +6V
YES
Are signal input at these pins of EV01 on the PWB assembly Drive?
NO
Measure the voltage at pin ③ of I104 on the PWB assembly Drive.
0V
PWB assembly Drive
5V
PWB assembly Signal
YES
CHV29 : VIDEO (Composite)
CHV28 : S-VIDEO (Y)
CHV27 : S-VIDEO (C)
CHV34 : Component (Y)
CHV35 : Component (Cb)
CHV36 : Component (Cr)
PWB assembly Drive
LCD module assembly





Pin No	RS-232C
1	
2	
3	
6	SEL0
7	RTS
9	
10	GND
12	
13	RDP
14	TDP

6. Service points

● Lead free solder [CAUTION]

This product uses lead free solder (unleaded) to help preserve the environment. Please read these instructions before attempting any soldering work.

Caution: Always wear safety glasses to prevent fumes or molten solder from getting into the eyes. Lead free solder can splatter at high temperatures (600˚C).

■ Lead free solder indicator

Printed circuit boards using lead free solder are engraved with an "F."

■ Properties of lead free solder

The melting point of lead free solder is 40-50˚C higher than leaded solder.

■ Servicing solder

Solder with an alloy composition of Sn-3.0Ag-0.5Cu or Sn-0.7Cu is recommended.
Although servicing with leaded solder is possible, there are a few precautions that have to be taken. (Not taking these precautions may cause the solder to not harden properly, and lead to consequent malfunctions.)

Precautions when using leaded solder

- Remove all lead free solder from soldered joints when replacing components.
- If leaded solder should be added to existing lead free joints, mix in the leaded solder thoroughly after the lead free solder has been completely melted (do not apply the soldering iron without solder).

■ Servicing soldering iron

A soldering iron with a temperature setting capability (temperature control function) is recommended.
The melting point of lead free solder is higher than leaded solder. Use a soldering iron that maintains a high stable temperature (large heat capacity), and that allows temperature adjustment according to the part being serviced, to avoid poor servicing performance.

Recommended soldering iron:

- Soldering iron with temperature control function (temperature range: 320-450˚C)

Recommended temperature range per part:

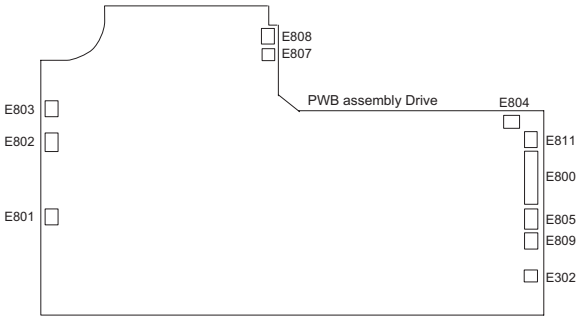
Part	Soldering iron temperature
Mounting (chips) on mounted PCB	320˚C±30˚C
Mounting (chips) on empty PCB	380˚C±30˚C
Chassis, metallic shield, etc.	420˚C±30˚C

The PWB assembly which has used lead free solder

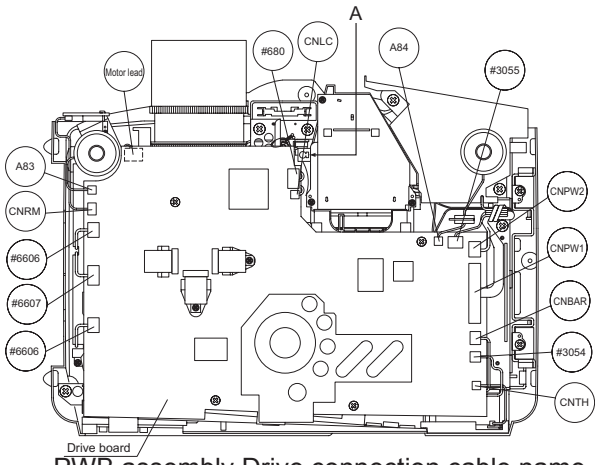
① PWB assembly DRIVE
② PWB assembly SIGNAL
③ PWB assembly REMOTE CONTROL
④ PWB assembly LIMIT SWITCH
⑤ PWB assembly SENSOR

● When cleaning the optical system with the PWB assembly Drive connected

More efficient operation is possible if the optional JOINT PWB (JP056511) is used because the cable can then be extended.



PWB assembly Drive connector name



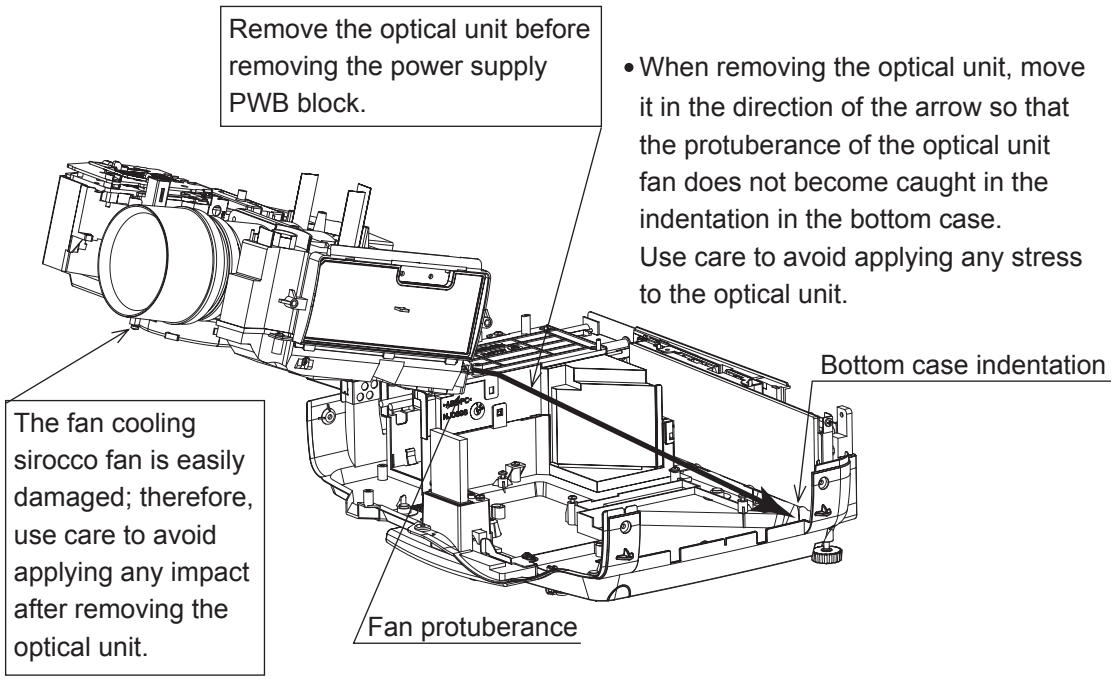
PWB assembly Drive connection cable name

Operational Method

No.	PWB assembly Drive connection cable name	JOINT PWB type and connector	PWB assembly Drive connector name	Signal content
①	CNPW1	12P PH (JA04721-G) E72	E800	Power supply secondary
②	CNPW2	3P PH (JA04721-B) E22	E811	Power supply secondary
③	CNBAR	4P PH (JA04721-C) E32	E805	Ballast power supply control
④	#3054	3P PH (JA04721-B) E22	E809	Power supply air intake fan
⑤	CNTH	2P DF13 (JA04721-D) E42	E302	Air intake temperature sensor
⑥	#3055	3P ZH (JA04721-E) E52	E804	Exhaust fan
⑦	CNLC	2P DF13 (JA04721-D) E42	E807	Lamp door switch
⑧	#680	4P ZH (JA04721-F) E62	E808	Lamp fan
⑨	#6606	3P ZH (JA04721-E) E52	E803	Red (R) panel fan
⑩	#6606	3P ZH (JA04721-E) E52	E801	Blue (B) panel fan
⑪	#6607	4P ZH (JA04721-F) E62	E802	Green (G) panel fan

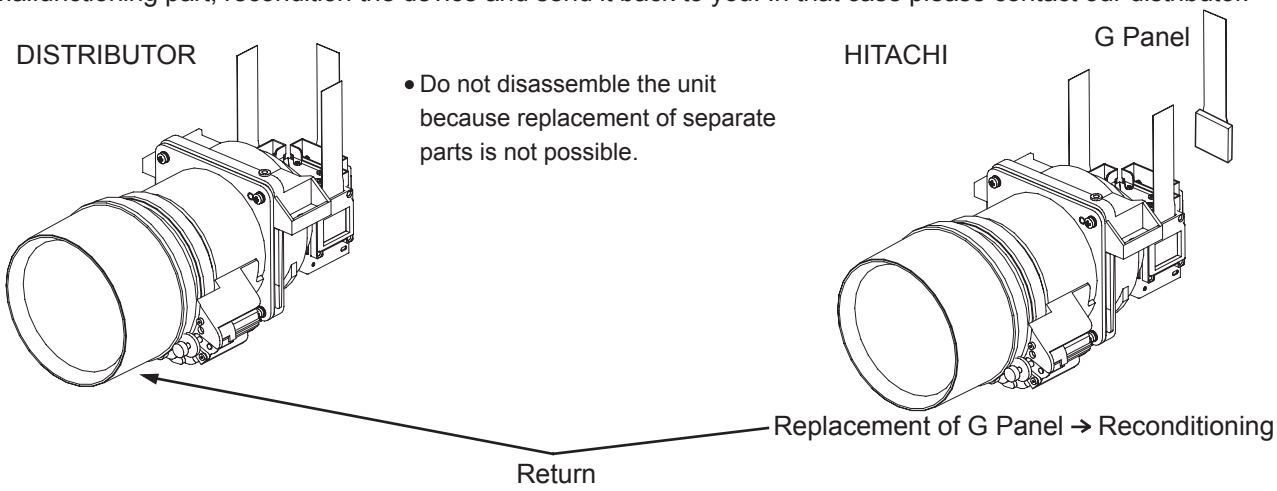
Cautions

- There is no front remote control PWB extension; therefore, the remote control cannot be used during operation unless Remote Control Photoreceptor only rear is selected from the Menu beforehand.
- The lamp door switch is turned off when the upper case is removed; therefore, it is necessary to turn on the lamp door switch by using a thin object to continuously press where indicated by "A" in the illustration.


Remove the optical unit before removing the power supply PWB block.
• When removing the optical unit, move it in the direction of the arrow so that the protuberance of the optical unit fan does not become caught in the indentation in the bottom case.
Use care to avoid applying any stress to the optical unit.
Bottom case indentation
The fan cooling sirocco fan is easily damaged; therefore, use care to avoid applying any impact after removing the optical unit.
Fan protuberance

● Before Replacing the LCD / Lens Prism

You should not replace separately the parts of the liquid crystal LCD / Lens Prism because it works properly only when used together. Therefore, regarding these parts, you can either replace part, LCD / Lens Prism assembly, or send the whole unit LCD / Lens Prism assembly back to HITACHI, where we will replace the malfunctioning part, recondition the device and send it back to you. In that case please contact our distributor.


DISTRIBUTOR
• Do not disassemble the unit because replacement of separate parts is not possible.
HITACHI
G Panel
Replacement of G Panel → Reconditioning
Return

● Putting batteries into the remote control unit

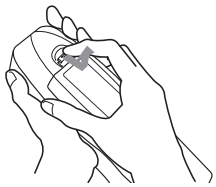
⚠ **CAUTION** Precautions to observe in regards to the batteries

Always handle the batteries with care and use them only as directed. Improper use may result in battery cracking or leakage, which could result in fire, injury and/or pollution of the surrounding environment.

- Keep the battery away from children and pets.
- Be sure to use only the batteries specified for use with the remote control. Do not mix new batteries with used ones.
- When inserting batteries, verify that the plus and minus terminals are aligned correctly (as indicated in the remote control).
- When you dispose the battery, you should obey the law in the relative area or country.

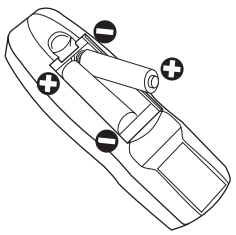
1 **Remove the battery cover**

Slide back and remove the battery cover in the direction of the arrow.



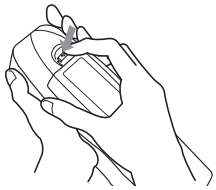
2 **Insert the batteries**

Align and insert the two AA batteries (that came with the projector) according to their plus and minus terminals (as indicated in the remote control).



3 **Close the battery cover**

Replace the battery cover in the direction of the arrow and snap it back into place.



● **Lamp** (Option Lamp:DT00531)

HIGH VOLTAGE
HIGH TEMPERATURE
HIGH PRESSURE

To replace the lamp, check the model number of the replacement lamp (sold separately).
Replacement lamp model number: DT00531
Before replacing the lamp, make sure the power switch is off and the power cable is not plugged in, then wait at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.

⚠**WARNING** The LCD projector uses a glass lamp bulb. It is a mercury lamp with high internal pressure. High-pressure mercury lamps can break with a loud bang, or burn out, if jolted or scratched, or through wear over time. Each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, when the bulb bursts, it is possible for shards of glass to fly into the lamp housing, and for gas containing mercury to escape from the projector's vent holes.

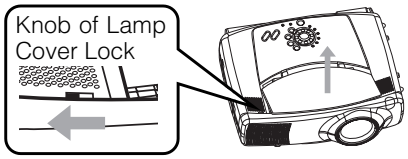
- Do not open the lamp cover while the projector is suspended from above. This is dangerous, since if the lamp's bulb has broken, the shards will fall out when the cover is opened.
- Handle with care: jolting or scratching could cause the lamp bulb to burst during use.
- If the replace lamp indicator (see "Related Messages" and "Regarding the indicator Lamps") comes on, replace the lamp as soon as possible. Using the lamp for long periods of time, or past the replacement date, could cause it to burst. Do not use old (used) lamps; this is a cause of breakage.
- If the lamp breaks soon after the first time it is used, it is possible that there are electrical problems elsewhere besides the lamp.
- If the lamp should break (it will make a loud bang when it does), ventilate the room well, and make sure not to breathe the gas that comes out of the projector vents, or get it in your eyes or mouth.
- Obey local ordinances when disposing of used lamps. In most cases, it is possible to dispose of used bulbs in the same manner as used glass bottles, but in some cases, bulbs are sorted separately.
- Do not use the projector with the lamp cover removed.

Replacing the Lamp

All projector lamps will wear out eventually. If used for long periods of time, the image could become darkened, and the color contrast could be impacted as well. We recommend that you replace your lamps early. If the LAMP indicator turns red, or a message prompts you to replace the lamp when you power up the projector, the lamp needs to be replaced. (See "Related Messages" and "Regarding the Indicator Lamps" for details.)

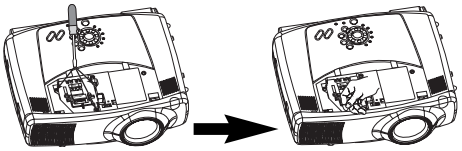
1 **Turn off the projector, and unplug the power cord. Allow the lamp bulb to cool for at least 45 minutes, and prepare a new lamp (serial number: DT00531)**

2 **After making sure that the projector has cooled adequately, slide the knob of a lamp cover lock as shown in the figure. Then, one side of the lamp cover is raised. Pull up the lamp cover and remove it, as shown in the figure**



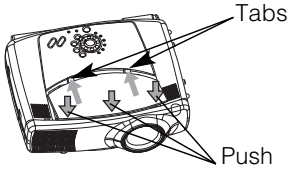
3 **Unscrew the 3 screws, and slowly pull out the lamp by the handle**

• Be careful not to touch the inside of the lamp case.



4 **Insert the new lamp, and tighten the 3 screws firmly to lock it in place**

5 **Interlocking the 2 tabs of the lamp cover to the projector, put the lamp cover on the projector.**
Then push the point of the lamp cover to fix it, as shown in the figure.
Make sure that the lamp cover does't come up



6 **Turn on the projector power, and reset the lamp timer**

• To reset the lamp timer, from the OPTION menu, select the LAMP TIME.

ATTENTION • Make sure that the screws are screwed in firmly. Loose screws could result in damage or injury.
- Do not use with lamp cover removed.
- Do not reset the lamp timer without replacing the lamp. Reset the lamp timer always when replacing the lamp. The message functions will not operate properly if the lamp timer is not reset correctly.
- When the lamp has been replaced after the message of "CHANGE THE LAMP .....THE POWER WILL TURN OFF AFTER 0 hr." is displayed, or the LAMP indicator is red, complete the following operation within 10 minutes of switching power on.

NOTE • The LAMP indicator is also red when the lamp unit reaches high temperature. Before replacing the lamp, switch power off, wait approximately 20 minutes, and switch power on again. If the LAMP indicator is still red, replace the lamp.

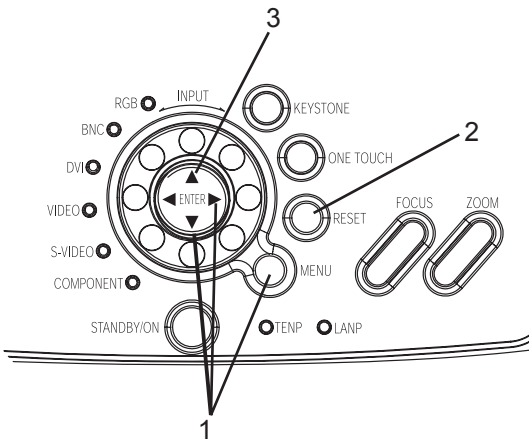
Resetting the Lamp Timer

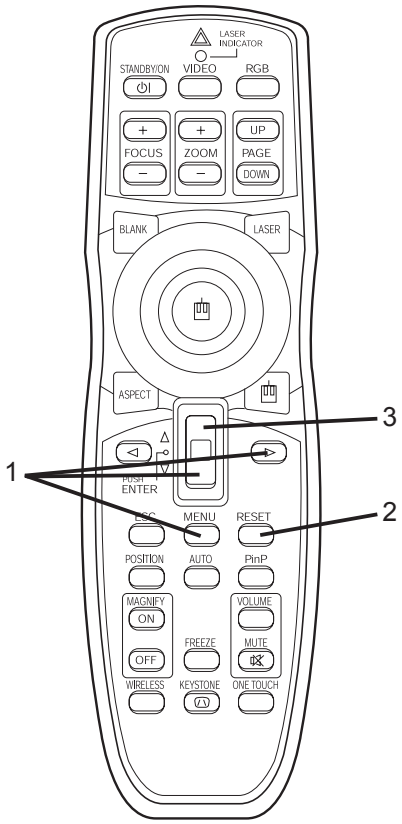
Reset the lamp timer after replacing the lamp. When the lamp has been replaced after the LAMP indicator is red, or the CHANGE THE LAMP message is displayed, complete the following operation within ten minutes of switching power ON. The power will be turned off automatically in over 10 minutes.

1. Switch power ON, and select the LAMP TIME on the OPTION menu.
2. Depress the RESET button for at least 3 seconds while lamp time is being displayed.
   The reset menu will then appear.
3. Select RESET on the menu with the ▲ button, and wait until the timer display is cleared.

NOTE:

Do not reset the lamp timer without replacing the lamp. Reset the lamp timer always when replacing the lamp. The message functions will not operate properly if the lamp timer is not reset correctly.





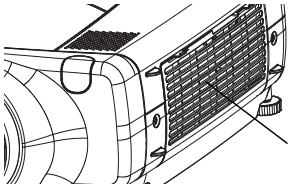
● Air Filter

Caring for the air filter

The air filter should be cleaned about every 100 hours. If the LAMP indicator and TEMP indicator blink red simultaneously, or a message prompts you to clean the air filter when you turn on the unit, the filter needs to be cleaned. (See "Related Messages" and "Regarding the Indicator Lamps" for details.)

1 **Turn off the projector, and unplug the power cord**

2 **Apply a vacuum cleaner to the top of the air filter cover to clean the air filter**



3 **Turn on the projector, and use the menu to reset the filter timer**

• To reset the air filter timer, from the OPTION menu, select FILTER TIME.

Replacing the air filter

If the soiling will not come off the air filter, or it becomes damaged, then it needs to be replaced. Please contact your local dealer, after confirming the model of your separately sold replacement air filter.
Replacement air filter model: NJ07081

1 **Turn off the projector, and unplug the power cord. Prepare a new air filter (one specified for your projector)**

2 **Remove the air filter cover and air filter**

3 **Insert the new filter, and replace the filter cover**

4 **Turn on the projector power, and using the menu, reset the filter timer**

• To reset the lamp timer, from the OPTION menu, select FILTER TIME.

ATTENTION • Make sure to turn off the power and unplug the power cord before caring for the unit. Please carefully read "Safety Instructions", in order to care for your projector correctly.
• Do not use with air filter cover removed.
• If the air filter becomes clogged by dust or the like, internal temperature rises and could cause malfunction. The power is automatically turned off in order to prevent the unit from overheating internally.

● Notice of AUTO adjustment

Use of AUTO adjustment with the image through RGB input optimizes VPOSI, HPOSI, HSIZE and HPHASE automatically.

In case that projected image has dark tone around its peripheral, AUTO operation sometimes makes artifacts in the image, shifts capture area and so on. Those failures are caused by period of image data is not exactly distinguished to period of blanking on signal processing.

To avoid such phenomena, AUTO function should be used with the full size picture that has bright tone on its peripheral.

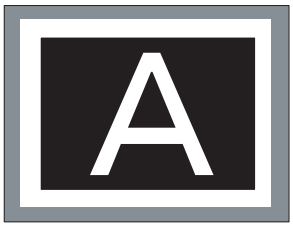


Image when AUTO operates correctly

Image when AUTO fails.

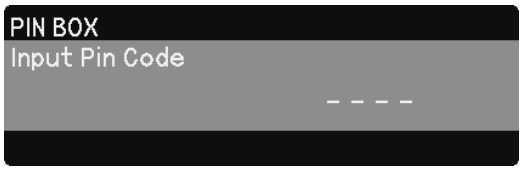
- Noting image of top or bottom lines.
- Shift of the image to East or West.
- Artifacts on image. Etc.

Note

1) The phenomenon at the failure of AUTO adjustment depends on resolution of input source, scene of picture etc.
2) There is no failure above in AUTO with video source through VIDEO, S-VIDEO or COMPONENT input. The reason is why recognition of input signal's standard does not need to search the capture range from input signal itself.

● PIN LOCK System

If the following PIN BOX menu appears after power on the projector, the PIN LOCK system has been activated. Under such a condition, key operations and signal displaying are inhibited. To open the PIN LOCK system, we need to input the correct 4 digits PIN CODE. If correct PIN CODE is not input in 5 min., the lamp will be automatically turned off.



PIN BOX

Returning repaired unit

Use the Master PIN code. See the paragraph of Releasing the PIN LOCK system inactivation.

Swap unit/Returned unit

Inactivate the PIN LOCK system. See the paragraph of the PIN LOCK system inactivation.

Releasing the PIN LOCK System

When the PIN BOX menu is displayed, sequentially enter the codes with remote controller as follows. In accordance with remote controller button entry, "∗" mark appears in the PIN BOX menu.

Master PIN codes

1st entry code: Press the "MENU" button.
2nd entry code: Press the "▼" button.
3rd entry code: Press the "KEYSTONE" button.
4th entry code: Press the "▲" button.

Note: The Master PIN codes can be used up to 30 times. The codes cannot be used thereafter. If the Master PIN codes cannot be used, see the paragraph of the PIN LOCK system inactivation.

The PIN LOCK System inactivation

1. When the PIN BOX menu is displayed, press "RESET" for 3 seconds or more in order to get the ID Inquiring Code.

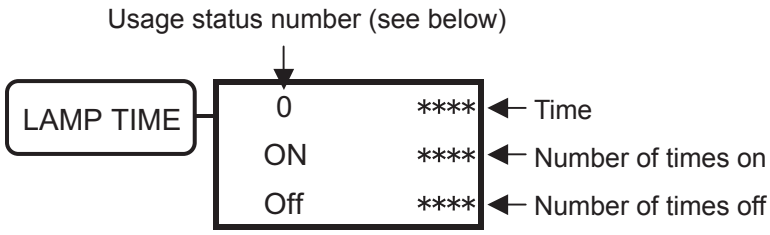
PIN BOX (ID Inquiring Code)

2. Send HITACHI sales company the Inquiring code (10 digits) to inquire the correct PIN code.
3. With the PIN BOX menu displayed, input the correct PIN code. Enter the correct PIN CODE that HITACHI sales company informed.
4. Open menu and select "TURN OFF" from the PIN LOCK items in the OPTION menu. Then the PIN BOX menu appears.
5. Input the correct PIN code in the PIN BOX menu.
6. And then, the OPTION menu appears.

After the PIN LOCK system is inactivated, the PIN BOX is no longer displayed in the OPTION menu.
If the PIN LOCK items are kept displaying, the PIN LOCK system is not inactivated yet. Input the correct PIN CODE again.

● Set operating time display method (accumulated lamp time display method)

1. Select [Option] from the [Menu] display, then select [Lamp Time].
2. Press the [Reset] button once, then press [Keystone] for 3 seconds or more to display the screen shown below. (The menu will close after 10 seconds if there are no further operations.)
3. Use "▲" or "▼" to select the usage status number. (The usage status is as shown below.)



Usage status number

0 ..... Total usage status
1 ..... Current usage status
2 ..... Usage status before first reset
3 ..... Usage status before second reset
||
8 ..... Usage status before seventh reset

Related Messages

When the unit's power is ON, messages such as those shown below may be displayed. When any such message is displayed on the screen, please respond as described below.

Message	Description
CHANGE THE LAMP **AFTER REPLACING LAMP, RESET THE LAMP TIMER.** (Note 1)	Lamp usage time is approaching 2,000 hours. (Note 2) Preparation of a new lamp, and an early lamp change, is recommended. After you have changed the lamp, please be sure to reset the lamp timer.
CHANGE THE LAMP **AFTER REPLACING LAMP, RESET THE LAMP TIMER.** **THE POWER WILL TURN OFF AFTER ＊＊ hr.** (Note 1)	Lamp usage time is approaching 2,000 hours. A lamp change within ＊＊ hours is recommended. (Note 2) When lamp usage reaches 2,000 hours, the power will automatically be turned OFF. Please change the lamp by referring to “THE LAMP”. After you have changed the lamp, please be sure to reset the lamp timer.
CHANGE THE LAMP **AFTER REPLACING LAMP, RESET THE LAMP TIMER.** **THE POWER WILL TURN OFF AFTER 0 hr.**	As lamp use has reached 2,000 hours, the power will soon be automatically turned OFF. (Note 2) Please immediately turn the power OFF, and follow the instructions in the “THE LAMP”. After you have changed the lamp, please be sure to reset the lamp timer.
CLEAN THE AIR FILTER **AFTER CLEANING AIR FILTER, RESET THE FILTER TIMER.**	A note of precaution when cleaning the air filter. After cleaning the filter, operate FILTER TIME of the OPTION Menu, and perform reset of the filter timer.
NO INPUT IS DETECTED **ON ＊＊＊**	There is no input signal. Please confirm the signal input connection, and the status of the signal source.
SYNC IS OUT OF RANGE ON ＊＊＊ fH ＊＊＊＊＊kHz fV ＊＊＊＊＊Hz	The horizontal or vertical wavelength of the inputted signal is outside of the response parameters of this unit. Please confirm the specs for this unit or the signal source specs.
CHECK THE AIR FLOW	The internal portion temperature is rising. Please turn the power OFF, and allow the unit to cool down for approximately 20 minutes. After having confirmed the following items, then please resent the power to ON. • Is there blockage of the air passage aperture? • Is the air filter dirty? • Does the peripheral temperature exceed 35°C?

NOTES

Note 1: Although this message will be automatically disappeared after around 3 minutes, it will be reappeared every time the power is turned ON.

Note 2: Lamps have a finite product life. Lamps are characterized by the fact that, after long hours of usage, a lamp will no longer light up, or the lamp will break or burst, etc. This unit is equipped with an automatic shut-down function, such that the power will automatically be turned OFF when lamp usage time has reached 2,000 hours. Please be aware, however, that among lamp types, there are major differences in product lifetimes; a lamp may thus fail to light even prior to the functioning of the automatic shut-down function of this unit.

Regarding the Indicator Lamps

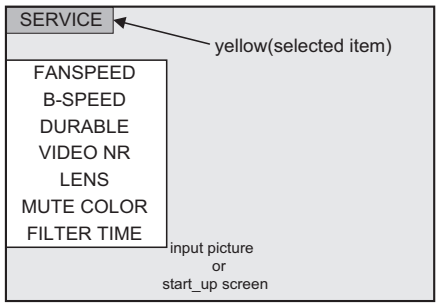
Lighting and flashing of the POWER indicator, the LAMP indicator, and the TEMP indicator have the meanings as described in the Table below. Please respond in accordance with the instructions within the Table.

POWER indicator	LAMP indicator	TEMP indicator	Description
The orange lamp is lighted	Turned OFF (Not lighted)	Turned OFF (Not lighted)	The STANDBY mode is set
Flashing of the green lamp	Turned OFF	Turned OFF	The unit is warming up. Please wait.
The green lamp is lighted	Turned OFF	Turned OFF	The unit is in an ON state. Ordinary operations may be performed.
Flashing of the orange lamp	Turned OFF	Turned OFF	The unit is cooling down. Please wait.
Blinking of the red lamp	-	-	The unit is cooling down. Please wait. A certain error has been detected. Wait until the POWER indicator lamp has finished flashing, and then perform the proper response measure using the item descriptions below as reference.
The red lamp is lighted, or blinks	The red lamp is lighted	Turned OFF	The lamp does not light. There is a possibility that the interior portion has become heated. Turn the power OFF and wait approximately 20 minutes. After the main unit has cooled down, please confirm whether or not there is blockage of the air passage aperture, whether or not the filter is dirty, and/or whether or not the peripheral temperature exceeds 35°C, etc. After performing any needed maintenance, turn the power ON again.
The red lamp is lighted, or blinks	Blinking of the red lamp	Turned OFF	Either there is no lamp and/or lamp cover, or either of these has not been properly fixed (attached). Turn the power OFF and wait approximately 45 minutes. After the main unit has sufficiently cooled down, please make confirmation of the attachment state of the lamp and lamp cover. After performing any needed maintenance, turn the power ON again.
The red lamp is lighted, or blinks	Turned OFF	Blinking of the red lamp	The cooling fan is not operating. Turn the power OFF and wait approximately 20 minutes. After the main unit has cooled down, please make confirmation that no foreign matter has become caught in the fan, etc. After performing any needed maintenance, turn the power ON again.
The red lamp is lighted, or blinks	Turned OFF	The red lamp is lighted	There is a possibility that the interior portion has become heated. Turn the power OFF and wait approximately 20 minutes. After the main unit has cooled down, please confirm whether or not there is blockage of the air passage aperture, whether or not the filter is dirty, and/or whether or not the peripheral temperature exceeds 35°C, etc. After performing any needed maintenance, turn the power ON again.
The green lamp is lighted	Alternative blinking with the red lamp		There is a possibility that the interior portion has become overcooled. Please use the unit within the usage temperature parameters (0°C to 35°C). After performing any needed maintenance, turn the power ON again.
The green lamp is lighted	Simultaneous blinking with the red lamp		This is a notification that it is time to clean the filter. After cleaning the filter, operate the FILTER TIME portion of the OPTION Menu, and perform reset of the FILTER TIME.

NOTE

When the interior portion has become overheated, for safety purposes, the power source is automatically turned OFF, and the indicator lamps may also be turned OFF. Press the "◯" (power OFF) side of the main power switch, and wait for approximately 20 minutes. Please then use the unit only after having first confirmed that the unit has sufficiently cooled down.

SERVICE MENU



To display the OSD for “SERVICE MENU” set up.

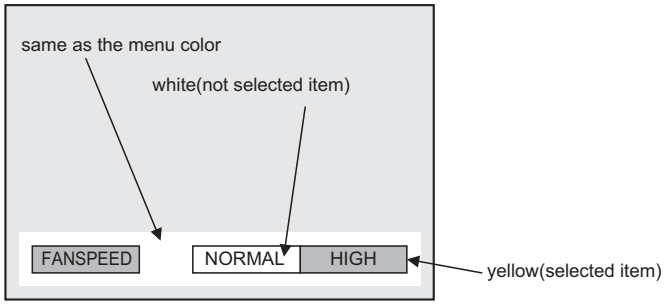
By the control panel	By the remote control transmitter
1. Display the menu by the “MENU” button. 2. Select the “OPT.” on the menu. 3. Continue press the button “◀” first, then press the button “◀” together with “RESET”, and hold for 3 seconds.	1. Display the menu by the “MENU” button. 2. Select the “OPT.” on the menu. 3. Continue pressing the button “MAGNIFY OFF” for 3 seconds.

● Setup of a Cooling Fan Speed

When using this projector in the place where altitude is high, we recommend you to set a cooling fan’s speed as “HIGH”. It is because the cooling efficiency of a projector falls and the temperature inside a projector rises easily in such a place, since the density of air becomes low.

Setting Method of Cooling Fan Speed

1. Select the “FAN SPEED” on the OSD using button “▼” by the SERVICE MENU.



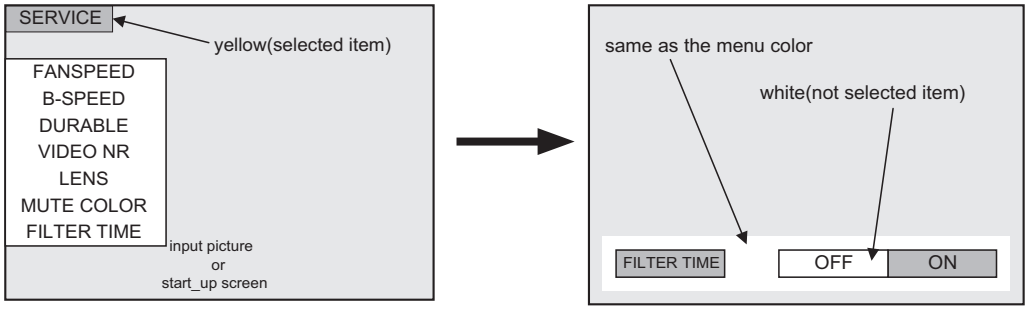
2. Select the “HIGH” on the OSD using the button “▶”. To reset this setup, select the “NORMAL” using the button “◀”.
3. The OSD will be ended by no operation for 10 seconds or change of input signal. To end immediately, use one of buttons except buttons “▲”, “▼”, “◀”, “▶”.

NOTE:

- The “HIGH” mode makes the fan noisy than “NORMAL” mode.
- The recall of factory setting sets the fan speed to “NORMAL” mode. You must set the fan speed after recall of factory setting if you need “HIGH” mode.

● Setup of Filter time (“ON” or “OFF”)

1. Select the “FILTER TIME” on the OSD using button “▼” by the SERVICE MENU.

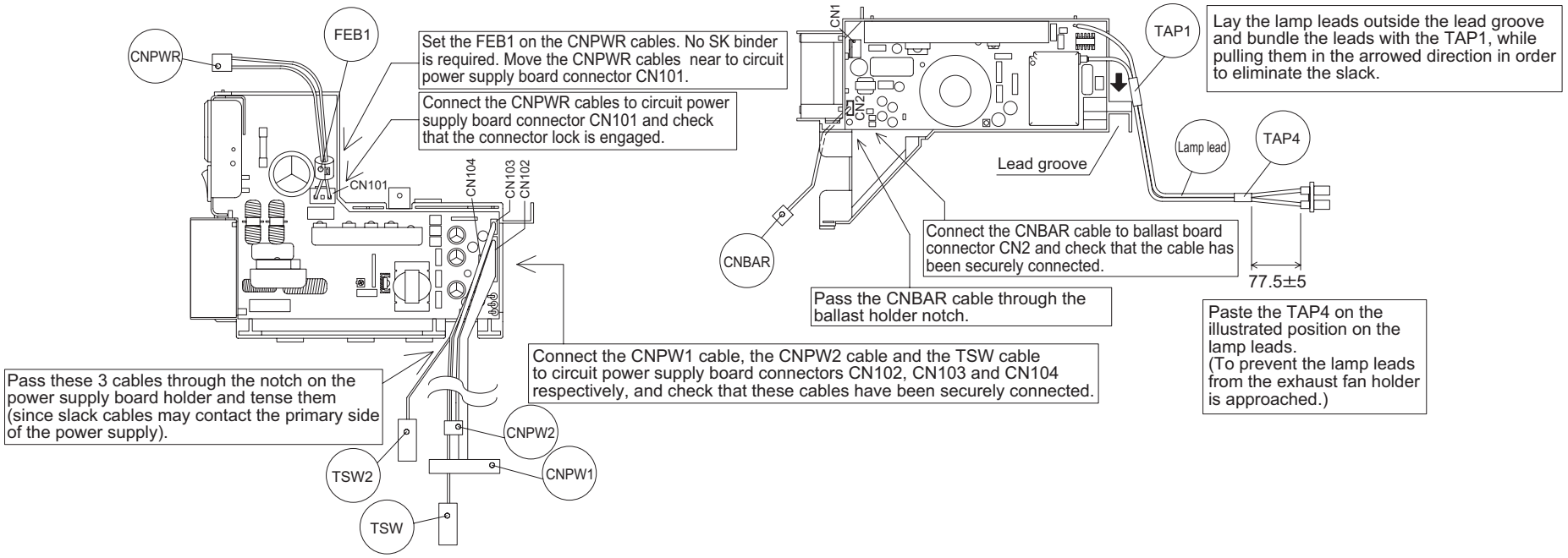


2. ON : Select the “ON” on the OSD using button “▶”.
   OFF : Select the “OFF” on the OSD using button “◀”.
3. The OSD will be ended by no operation for 10 seconds or change of input signal. To end immediately, use one of buttons except buttons “▲”, “▼”, “◀”, “▶”.

1. Power Supply Board Block Wiring

(1) Power supply board wiring
(for power supply board sub-assembly construction)

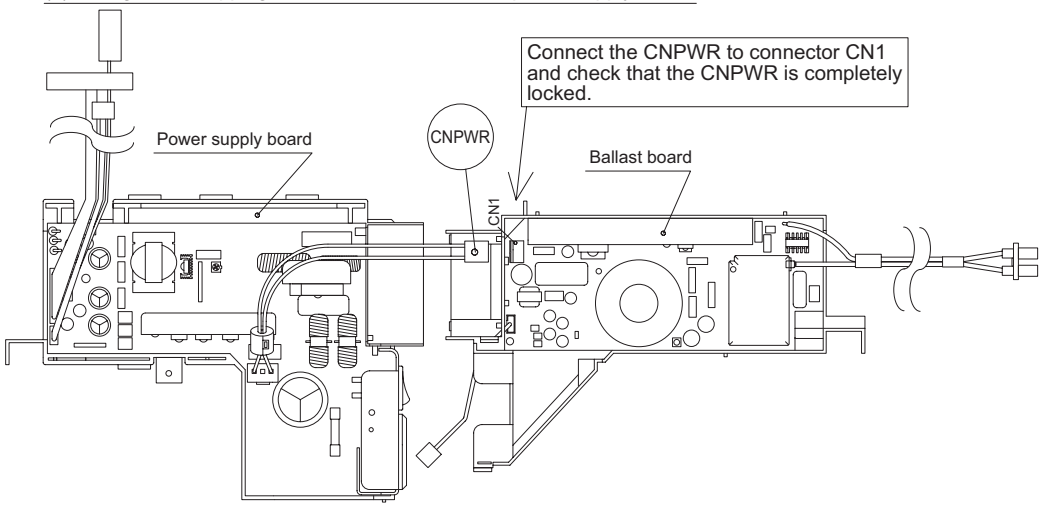
(2) Ballast board wiring
(for ballast board sub-assembly construction)


CNPWR
FEB1
Set the FEB1 on the CNPWR cables. No SK binder is required. Move the CNPWR cables near to circuit power supply board connector CN101.
Connect the CNPWR cables to circuit power supply board connector CN101 and check that the connector lock is engaged.
CN101
CN104
CN103
CN102
CN1
CN2
TAP1
Lay the lamp leads outside the lead groove and bundle the leads with the TAP1, while pulling them in the arrowed direction in order to eliminate the slack.
Lamp lead
TAP4
Lead groove
CNBAR
Connect the CNBAR cable to ballast board connector CN2 and check that the cable has been securely connected.
77.5±5
Pass the CNBAR cable through the ballast holder notch.
Paste the TAP4 on the illustrated position on the lamp leads.
(To prevent the lamp leads from the exhaust fan holder is approached.)
Connect the CNPW1 cable, the CNPW2 cable and the TSW cable to circuit power supply board connectors CN102, CN103 and CN104 respectively, and check that these cables have been securely connected.
Pass these 3 cables through the notch on the power supply board holder and tense them (since slack cables may contact the primary side of the power supply).
CNPW2
CNPW1
TSW2
TSW

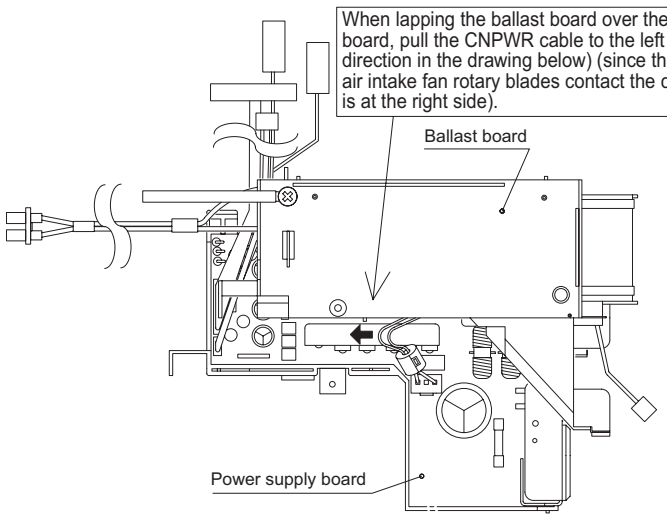
Wiring diagram (C8X/C8XM)

(3) Power supply board block wiring (for board block sub-assembly construction)

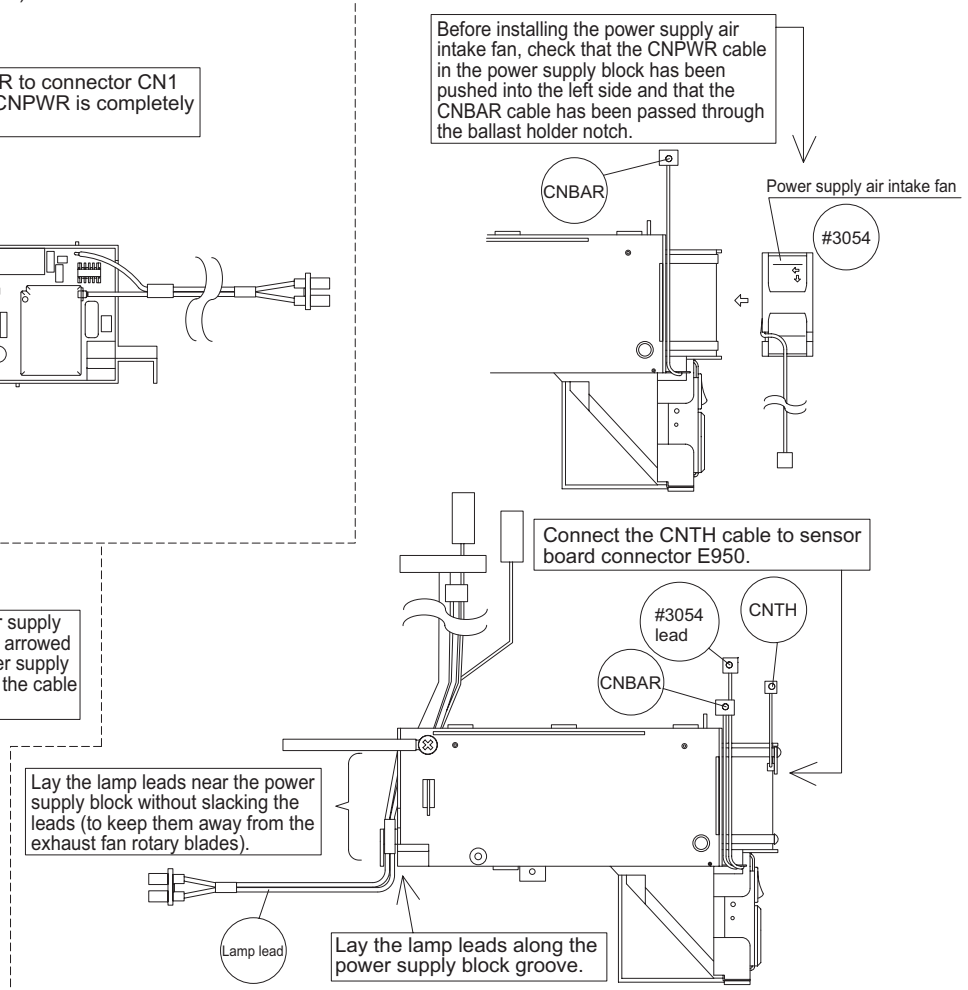
(a) Wiring before lapping the ballast board over the power supply board


Connect the CNPWR to connector CN1 and check that the CNPWR is completely locked.
Power supply board
CNPWR
CN1
Ballast board

(b) Wiring for lapping the ballast board over the power supply board

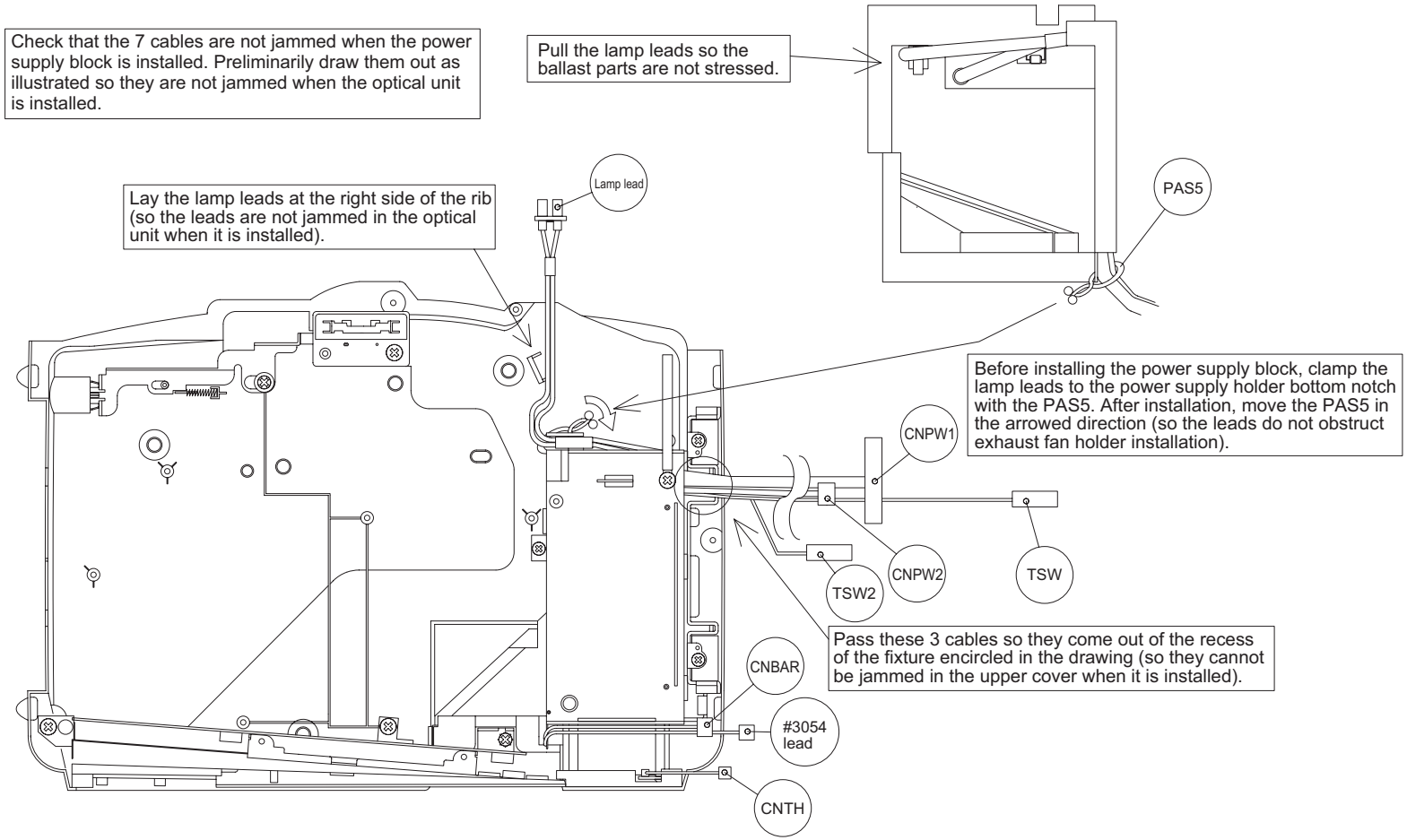

When lapping the ballast board over the power supply board, pull the CNPWR cable to the left (in the arrowed direction in the drawing below) (since the power supply air intake fan rotary blades contact the cable if the cable is at the right side).
Ballast board
Power supply board

(c) Wiring after lapping the ballast board over the power supply board


Before installing the power supply air intake fan, check that the CNPWR cable in the power supply block has been pushed into the left side and that the CNBAR cable has been passed through the ballast holder notch.
CNBAR
Power supply air intake fan
#3054
Connect the CNTH cable to sensor board connector E950.
#3054 lead
CNTH
CNBAR
Lay the lamp leads near the power supply block without slacking the leads (to keep them away from the exhaust fan rotary blades).
Lamp lead
Lay the lamp leads along the power supply block groove.

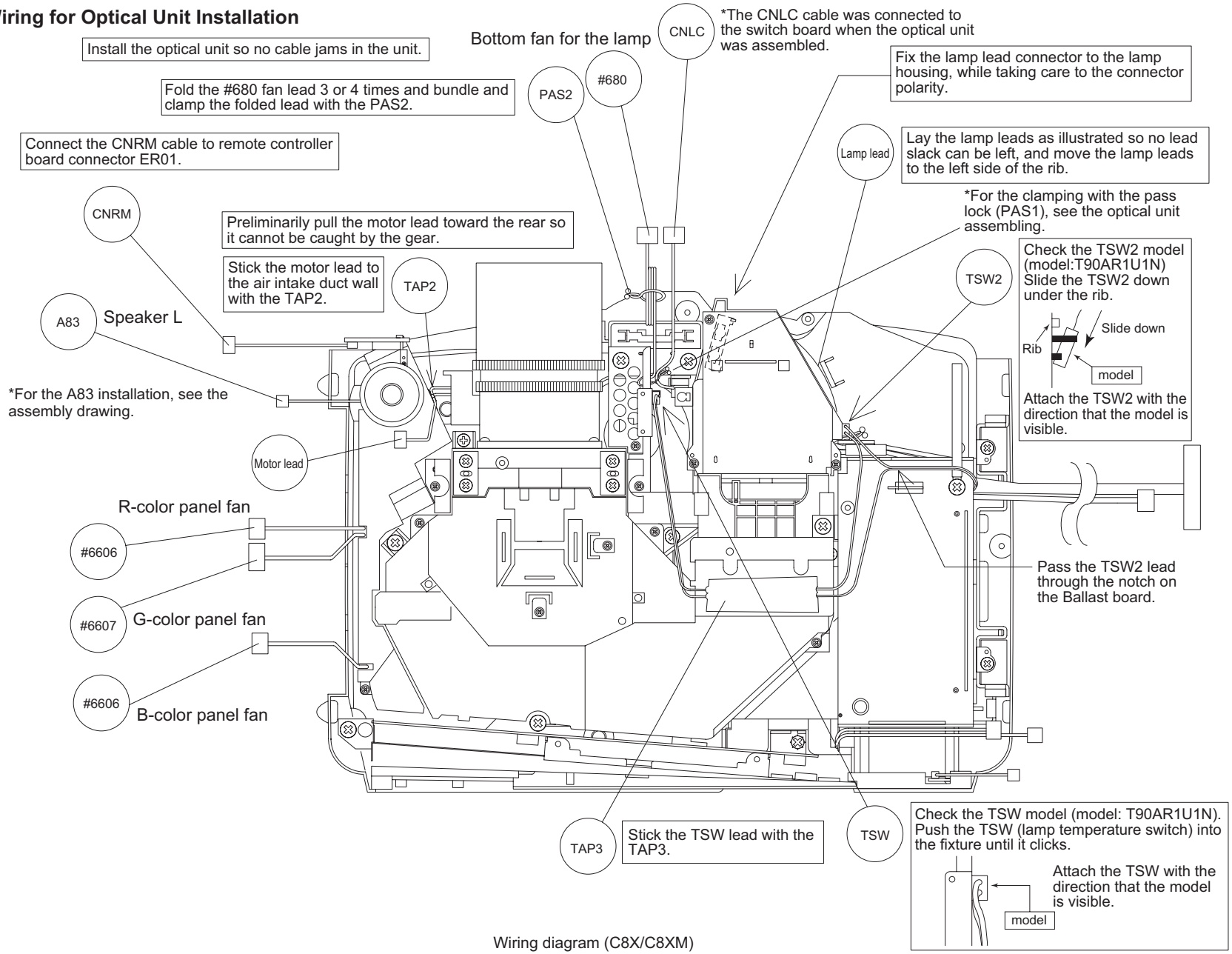
Wiring diagram (C8X/C8XM)

2. Wiring for Power Supply Block Installation on the Bottom Case


Check that the 7 cables are not jammed when the power supply block is installed. Preliminarily draw them out as illustrated so they are not jammed when the optical unit is installed.
Pull the lamp leads so the ballast parts are not stressed.
Lay the lamp leads at the right side of the rib (so the leads are not jammed in the optical unit when it is installed).
Lamp lead
PAS5
Before installing the power supply block, clamp the lamp leads to the power supply holder bottom notch with the PAS5. After installation, move the PAS5 in the arrowed direction (so the leads do not obstruct exhaust fan holder installation).
CNPW1
CNPW2
TSW
TSW2
Pass these 3 cables so they come out of the recess of the fixture encircled in the drawing (so they cannot be jammed in the upper cover when it is installed).
CNBAR
#3054 lead
CNTH

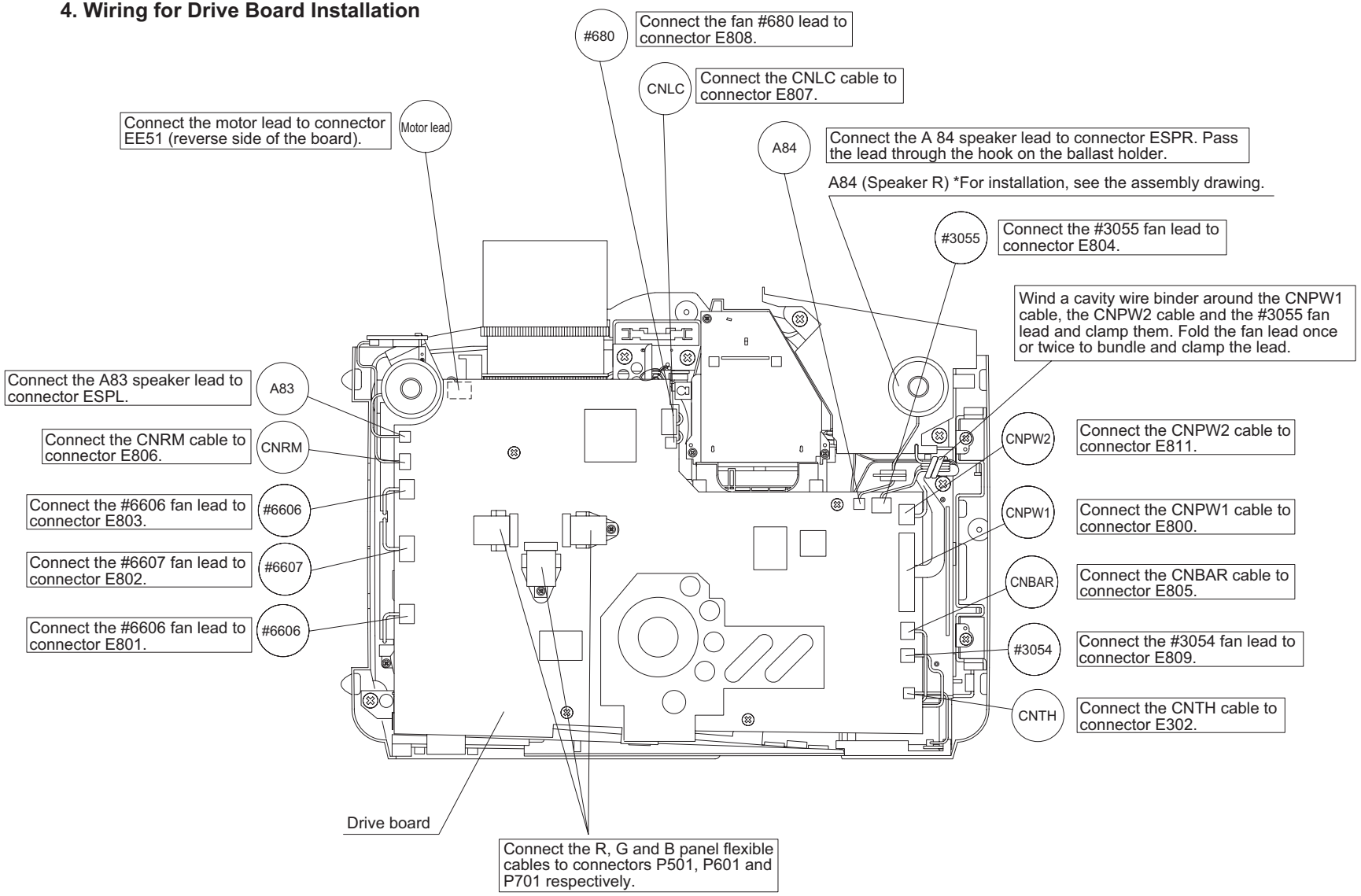
Wiring diagram (C8X/C8XM)

3. Wiring for Optical Unit Installation


Install the optical unit so no cable jams in the unit.
Bottom fan for the lamp
CNLC
*The CNLC cable was connected to the switch board when the optical unit was assembled.
Fix the lamp lead connector to the lamp housing, while taking care to the connector polarity.
Fold the #680 fan lead 3 or 4 times and bundle and clamp the folded lead with the PAS2.
PAS2
#680
Connect the CNRM cable to remote controller board connector ER01.
Lamp lead
Lay the lamp leads as illustrated so no lead slack can be left, and move the lamp leads to the left side of the rib.
*For the clamping with the pass lock (PAS1), see the optical unit assembling.
CNRM
Preliminarily pull the motor lead toward the rear so it cannot be caught by the gear.
Stick the motor lead to the air intake duct wall with the TAP2.
TAP2
TSW2
Check the TSW2 model (model:T90AR1U1N) Slide the TSW2 down under the rib.
Slide down
Rib
model
Attach the TSW2 with the direction that the model is visible.
A83
Speaker L
*For the A83 installation, see the assembly drawing.
Motor lead
R-color panel fan
#6606
#6607
G-color panel fan
#6606
B-color panel fan
Pass the TSW2 lead through the notch on the Ballast board.
TAP3
Stick the TSW lead with the TAP3.
TSW
Check the TSW model (model: T90AR1U1N). Push the TSW (lamp temperature switch) into the fixture until it clicks.
Attach the TSW with the direction that the model is visible.
model

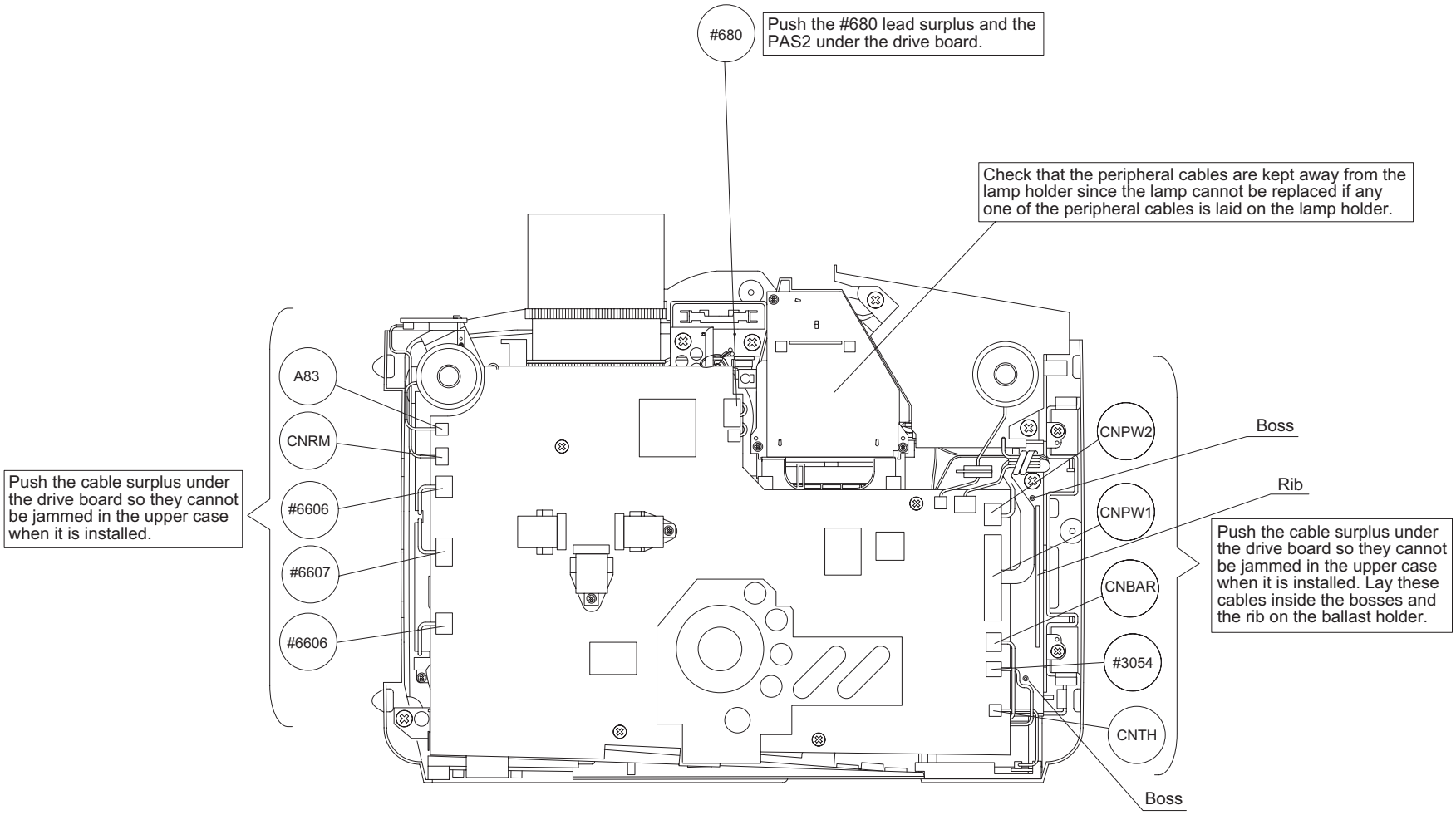
Wiring diagram (C8X/C8XM)

4. Wiring for Drive Board Installation


#680
Connect the fan #680 lead to connector E808.
CNLC
Connect the CNLC cable to connector E807.
Connect the motor lead to connector EE51 (reverse side of the board).
Motor lead
A84
Connect the A 84 speaker lead to connector ESPR. Pass the lead through the hook on the ballast holder.
A84 (Speaker R) *For installation, see the assembly drawing.
#3055
Connect the #3055 fan lead to connector E804.
Wind a cavity wire binder around the CNPW1 cable, the CNPW2 cable and the #3055 fan lead and clamp them. Fold the fan lead once or twice to bundle and clamp the lead.
Connect the A83 speaker lead to connector ESPL.
A83
Connect the CNRM cable to connector E806.
CNRM
Connect the #6606 fan lead to connector E803.
#6606
Connect the #6607 fan lead to connector E802.
#6607
Connect the #6606 fan lead to connector E801.
#6606
CNPW2
Connect the CNPW2 cable to connector E811.
CNPW1
Connect the CNPW1 cable to connector E800.
CNBAR
Connect the CNBAR cable to connector E805.
#3054
Connect the #3054 fan lead to connector E809.
CNTH
Connect the CNTH cable to connector E302.
Drive board
Connect the R, G and B panel flexible cables to connectors P501, P601 and P701 respectively.

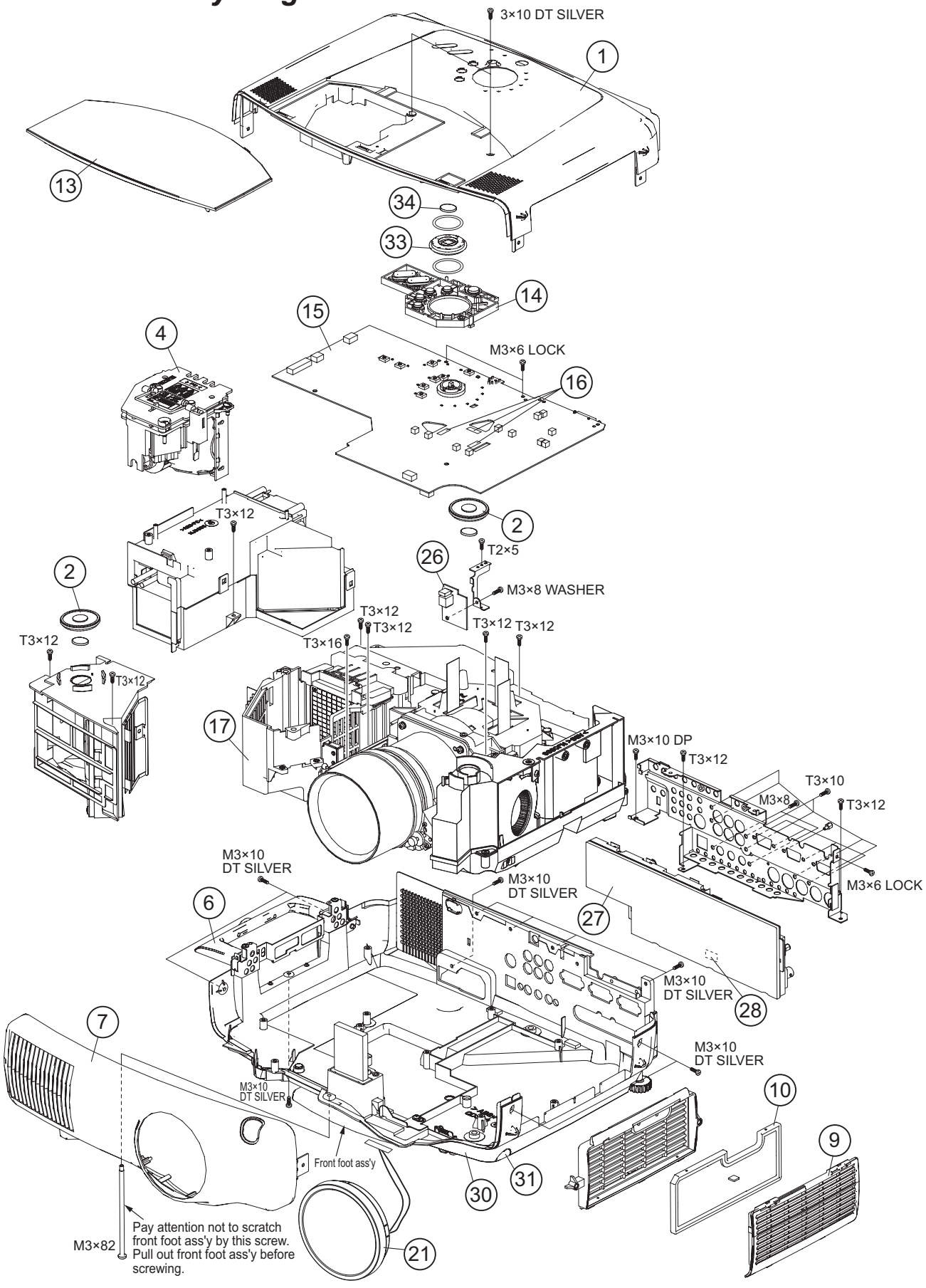
Wiring diagram (C8X/C8XM)

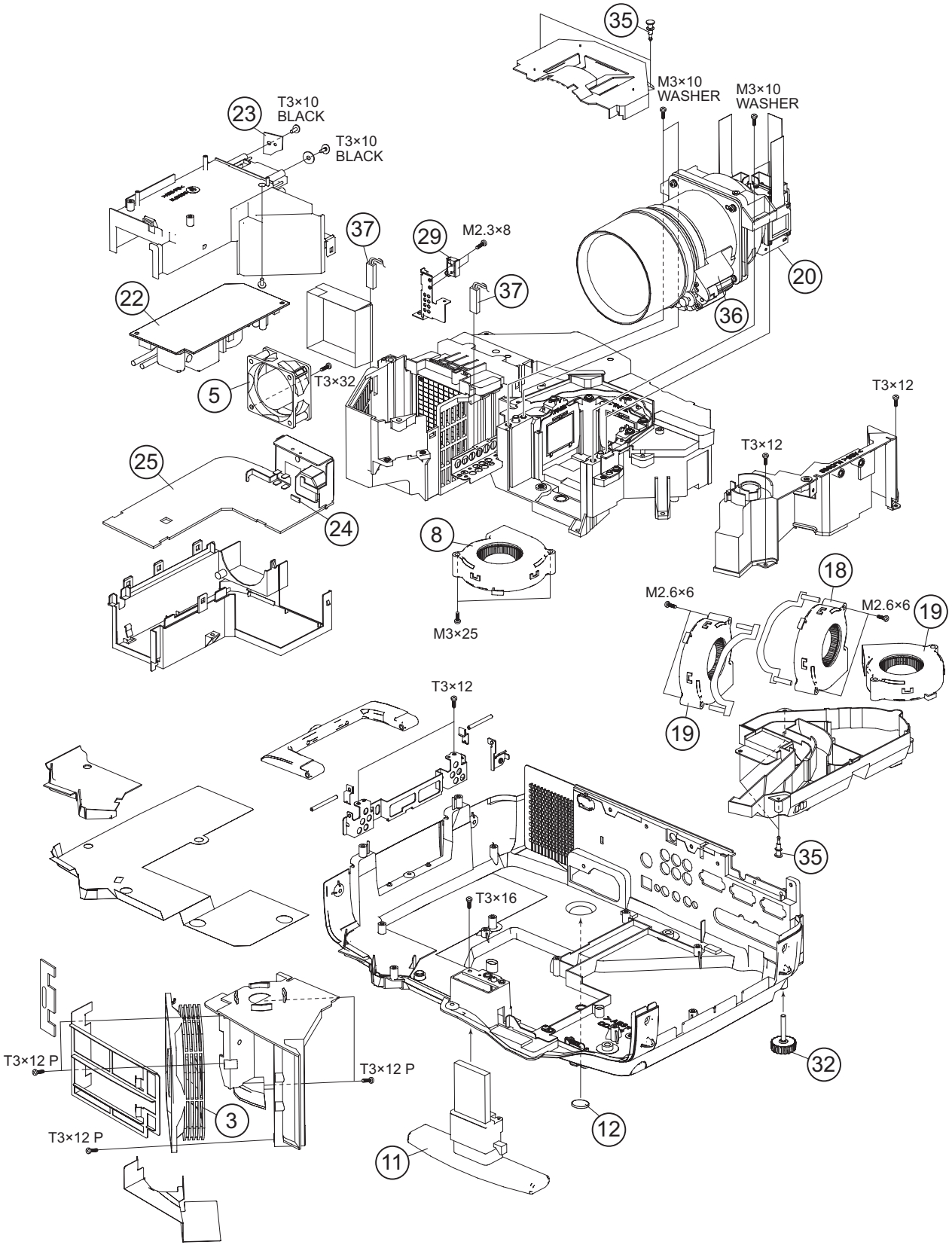
5. Wiring before Upper Case Installation


#680
Push the #680 lead surplus and the PAS2 under the drive board.
Check that the peripheral cables are kept away from the lamp holder since the lamp cannot be replaced if any one of the peripheral cables is laid on the lamp holder.
A83
CNRM
#6606
#6607
#6606
Push the cable surplus under the drive board so they cannot be jammed in the upper case when it is installed.
CNPW2
CNPW1
CNBAR
#3054
CNTH
Boss
Rib
Boss
Push the cable surplus under the drive board so they cannot be jammed in the upper case when it is installed. Lay these cables inside the bosses and the rib on the ballast holder.

Wiring diagram (C8X/C8XM)

8. Disassembly diagram




35
M3×10
WASHER
M3×10
WASHER
23
T3×10
BLACK
T3×10
BLACK
37
29
M2.3×8
37
20
36
22
5
T3×32
T3×12
T3×12
25
24
8
M3×25
18
M2.6×6
M2.6×6
19
19
T3×12
35
T3×16
T3×12 P
T3×12 P
T3×12 P
3
32
12
11

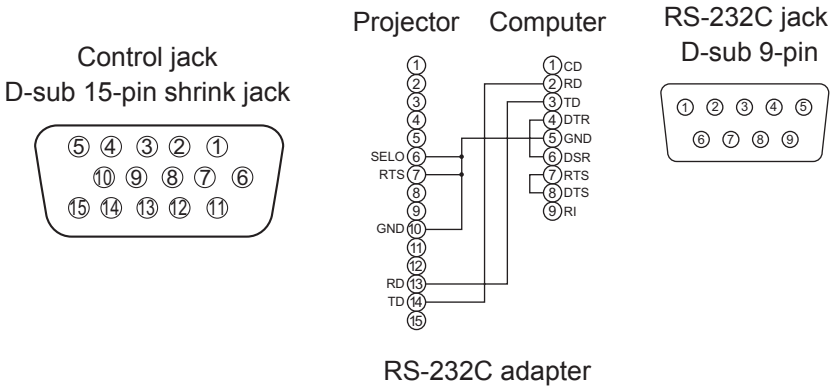
THE UPDATED PARTS LIST

FOR THIS MODEL IS

AVAILABLE ON ESTA

10. RS-232C communication

(1) Turn off the projector and computer power supplies and connect with the RS-232C adapter via the RS-232C cable.
(2) Turn on the computer power supply and after the computer has started up, turn on the projector power supply.



RS-232C adapter

Communications setting

19200bps, 8N1

1 Protocol

Consist of header (7 bytes) + command data (6 bytes).

2 Header

BE + EF + 03 + 06 + 00 + CRC_low + CRC_high.
CRC_low : Lower byte of CRC flag for command data.
CRC_high : Upper byte of CRC flag for command data.

3 Command data

Command data chart

byte_0	byte_1	byte_2	byte_3	byte_4	byte_5
Action		Type		Setting code	
low	high	low	high	low	high

Action (byte_0 - 1)

Action	Classification	Content
1	SET	Change setting to desired value.
2	GET	Read projector internal setup value.
4	INCREMENT	Increment setup value by 1.
5	DECREMENT	Decrement setup value by 1.
6	EXECUTE	Run a command.

Requesting projector status (Get command)

(1) Send the request code Header + Command data ('02H'+'00H'+ type (2 bytes) +'00H'+'00H') from the computer to the projector.
(2) The projector returns the response code '1DH'+ data (2 bytes) to the computer.

Changing the projector settings (Set command)

(1) Send the setting code Header + Command data ('01H'+'00H'+ type (2 bytes) + setting code (2 bytes)) from the computer to the projector.
(2) The projector changes the setting based on the above setting code.
(3) The projector returns the response code '06H' to the computer.

Using the projector default settings (Reset Command)

(1) The computer sends the default setting code Header + Command data ('06H'+'00H'+ type (2 bytes) + '00H'+'00H') to the projector.
(2) The projector changes the specified setting to the default value.
(3) The projector returns the response code '06H' to the computer.

Increasing the projector setting value (Increment command)

(1) The computer sends the increment code Header + Command data ('04H'+'00H'+ type (2 bytes) +'00H'+ '00H') to the projector.
(2) The projector increases the setting value on the above setting code.
(3) The projector returns the response code '06H' to the computer.

Decreasing the projector setting value (Decrement command)

(1) The computer sends the decrement code Header + Command data ('05H'+'00H'+ type (2 bytes) +'00H'+ '00H') to the projector.
(2) The projector decreases the setting value on the above setting code.
(3) The projector returns the response code '06H' to the computer.

When a command sent by the projector cannot be understood by the computer

When the command sent by the projector cannot be understood, the error command '15H' is returned by the computer. Some times, the projector ignores RS-232C commands during other works. If the error command '15H' is returned, please send the same command again.

When data sent by the projector cannot be practice

When the command sent by the projector cannot be practiced, the error code '1cH' +'xxxxH' is returned.
When the data length is greater than indicated by the data length code, the projector will ignore the excess data code.
Conversely, when the data length is shorter than indicated by the data length code, an error code will be returned to the projector.

NOTE:

- Operation cannot be guaranteed when the projector receives an undefined command or data.
- Provide an interval of at least 40ms between the response code and any other code.
- The projector outputs test data when the power supply is switched ON, and when the lamp is lit. Ignore this data.
- Commands are not accepted during warm-up.

Command data chart

Names	Operation type		Header	CRC	Command data		
					Action	Type	Setting code
Blank Color	Set	Blue	BE EF 03 06 00	CB D3	01 00	00 30	03 00
		White	BE EF 03 06 00	6B D0	01 00	00 30	05 00
		Black	BE EF 03 06 00	9B D0	01 00	00 30	06 00
		MyScreen	BE EF 03 06 00	FB CA	01 00	00 30	20 00
		ORIGNAL	BE EF 03 06 00	FB E2	01 00	00 30	40 00
	Get		BE EF 03 06 00	08 D3	02 00	00 30	00 00
Mirror	Set	Normal	BE EF 03 06 00	C7 D2	01 00	01 30	00 00
		H Inverse	BE EF 03 06 00	57 D3	01 00	01 30	01 00
		V Inverse	BE EF 03 06 00	A7 D3	01 00	01 30	02 00
		H&V Inverse	BE EF 03 06 00	37 D2	01 00	01 30	03 00
	Get		BE EF 03 06 00	F4 D2	02 00	01 30	00 00
Freeze	Set	Normal	BE EF 03 06 00	83 D2	01 00	02 30	00 00
		Freeze	BE EF 03 06 00	13 D3	01 00	02 30	01 00
	Get		BE EF 03 06 00	B0 D2	02 00	02 30	00 00
Startup	Set	ORIGNAL	BE EF 03 06 00	0B D2	01 00	04 30	00 00
		OFF	BE EF 03 06 00	9B D3	01 00	04 30	01 00
		MyScreen	BE EF 03 06 00	CB CB	01 00	04 30	20 00
	Get		BE EF 03 06 00	38 D2	02 00	04 30	00 00
Language	Set	English	BE EF 03 06 00	F7 D3	01 00	05 30	00 00
		Français	BE EF 03 06 00	67 D2	01 00	05 30	01 00
		Deutsch	BE EF 03 06 00	97 D2	01 00	05 30	02 00
		Español	BE EF 03 06 00	07 D3	01 00	05 30	03 00
		Italiano	BE EF 03 06 00	37 D1	01 00	05 30	04 00
		Norsk	BE EF 03 06 00	A7 D0	01 00	05 30	05 00
		Nederlands	BE EF 03 06 00	57 D0	01 00	05 30	06 00
		Português	BE EF 03 06 00	C7 D1	01 00	05 30	07 00
		日本語	BE EF 03 06 00	37 D4	01 00	05 30	08 00
		中文	BE EF 03 06 00	A7 D5	01 00	05 30	09 00
		한글	BE EF 03 06 00	57 D5	01 00	05 30	0A 00
	Get		BE EF 03 06 00	C4 D3	02 00	05 30	00 00
Magnify	Get		BE EF 03 06 00	7C D2	02 00	07 30	00 00
	Increment		BE EF 03 06 00	1A D2	04 00	07 30	00 00
	Decrement		BE EF 03 06 00	CB D3	05 00	07 30	00 00
Auto off	Get		BE EF 03 06 00	08 86	02 00	10 31	00 00
	Increment		BE EF 03 06 00	6E 86	04 00	10 31	00 00
	Decrement		BE EF 03 06 00	BF 87	05 00	10 31	00 00
Brightness Reset	Execute		BE EF 03 06 00	58 D3	06 00	00 70	00 00
Contrast Reset	Execute		BE EF 03 06 00	A4 D2	06 00	01 70	00 00
V.Position Reset	Execute		BE EF 03 06 00	E0 D2	06 00	02 70	00 00

Command data chart

Names	Operation type		Header	CRC	Command data		
					Action	Type	Setting code
H.Position Reset	Execute		BE EF 03 06 00	IC D3	06 00	03 70	00 00
H.Size Reset	Execute		BE EF 03 06 00	68 D2	06 00	04 70	00 00
Color Balance R Reset	Execute		BE EF 03 06 00	94 D3	06 00	05 70	00 00
Color Balance B Reset	Execute		BE EF 03 06 00	D0 D3	06 00	06 70	00 00
Sharpness Reset	Execute		BE EF 03 06 00	C4 D0	06 00	09 70	00 00
Color Reset	Execute		BE EF 03 06 00	80 D0	06 00	0A 70	00 00
Tint Reset	Execute		BE EF 03 06 00	7C D1	06 00	0B 70	00 00
Keystone_V Reset	Execute		BE EF 03 06 00	08 D0	06 00	0C 70	00 00
Keystone_H Reset	Execute		BE EF 03 06 00	98 D8	06 00	20 70	00 00
Auto Adjust	Execute		BE EF 03 06 00	91 D0	06 00	0A 20	00 00
Auto Keystone_V	Execute		BE EF 03 06 00	E5 D1	06 00	0D 20	00 00
Lamp Time Reset	Execute		BE EF 03 06 00	58 DC	06 00	30 70	00 00
Filter Time Reset	Execute		BE EF 03 06 00	98 C6	06 00	40 70	00 00
Blank on/off	Set	off	BE EF 03 06 00	FB D8	01 00	20 30	00 00
		on	BE EF 03 06 00	6B D9	01 00	20 30	01 00
	Get		BE EF 03 06 00	C8 D8	02 00	20 30	00 00
Error Status	Get		BE EF 03 06 00	D9 D8	02 00	20 60	00 00
			(Example of Return) 00 00 (Normal) 01 00 (Cover-error) 02 00 (Fan-error) 03 00 (Lamp-error) 04 00 (Temp-error) 05 00 (Air flow-error) 06 00 (Lamp-Time-over) 07 00 (Cool-error) 08 00 (Filter-Error)				
Power	Set	OFF	BE EF 03 06 00	2A D3	01 00	00 60	00 00
		ON	BE EF 03 06 00	BA D2	01 00	00 60	01 00
	Get		BE EF 03 06 00	19 D3	02 00	00 60	00 00
Input Source	Set	RGB	BE EF 03 06 00	FE D2	01 00	00 20	00 00
		BNC (RGB)	BE EF 03 06 00	3E D0	01 00	00 20	04 00
		Video	BE EF 03 06 00	6E D3	01 00	00 20	01 00
		S-Video	BE EF 03 06 00	9E D3	01 00	00 20	02 00
		Component	BE EF 03 06 00	AE D1	01 00	00 20	05 00
		DVI	BE EF 03 06 00	0E D2	01 00	00 20	03 00
		BNC (Component)	BE EF 03 06 00	5E D1	01 00	00 20	06 00
	Get		BE EF 03 06 00	CD D2	02 00	00 20	00 00
Volume	Get		BE EF 03 06 00	31 D3	02 00	01 20	00 00
	Increment		BE EF 03 06 00	57 D3	04 00	01 20	00 00
	Decrement		BE EF 03 06 00	86 D2	05 00	01 20	00 00
Mute	Set	Normal	BE EF 03 06 00	46 D3	01 00	02 20	00 00
		Mute	BE EF 03 06 00	D6 D2	01 00	02 20	01 00
	Get		BE EF 03 06 00	75 D3	02 00	02 20	00 00
Brightness	Get		BE EF 03 06 00	89 D2	02 00	03 20	00 00
	Increment		BE EF 03 06 00	EF D2	04 00	03 20	00 00
	Decrement		BE EF 03 06 00	3E D3	05 00	03 20	00 00
Contrast	Get		BE EF 03 06 00	FD D3	02 00	04 20	00 00
	Increment		BE EF 03 06 00	9B D3	04 00	04 20	00 00
	Decrement		BE EF 03 06 00	4A D2	05 00	04 20	00 00
Color Balance R	Get		BE EF 03 06 00	01 D2	02 00	05 20	00 00
	Increment		BE EF 03 06 00	67 D2	04 00	05 20	00 00
	Decrement		BE EF 03 06 00	B6 D3	05 00	05 20	00 00

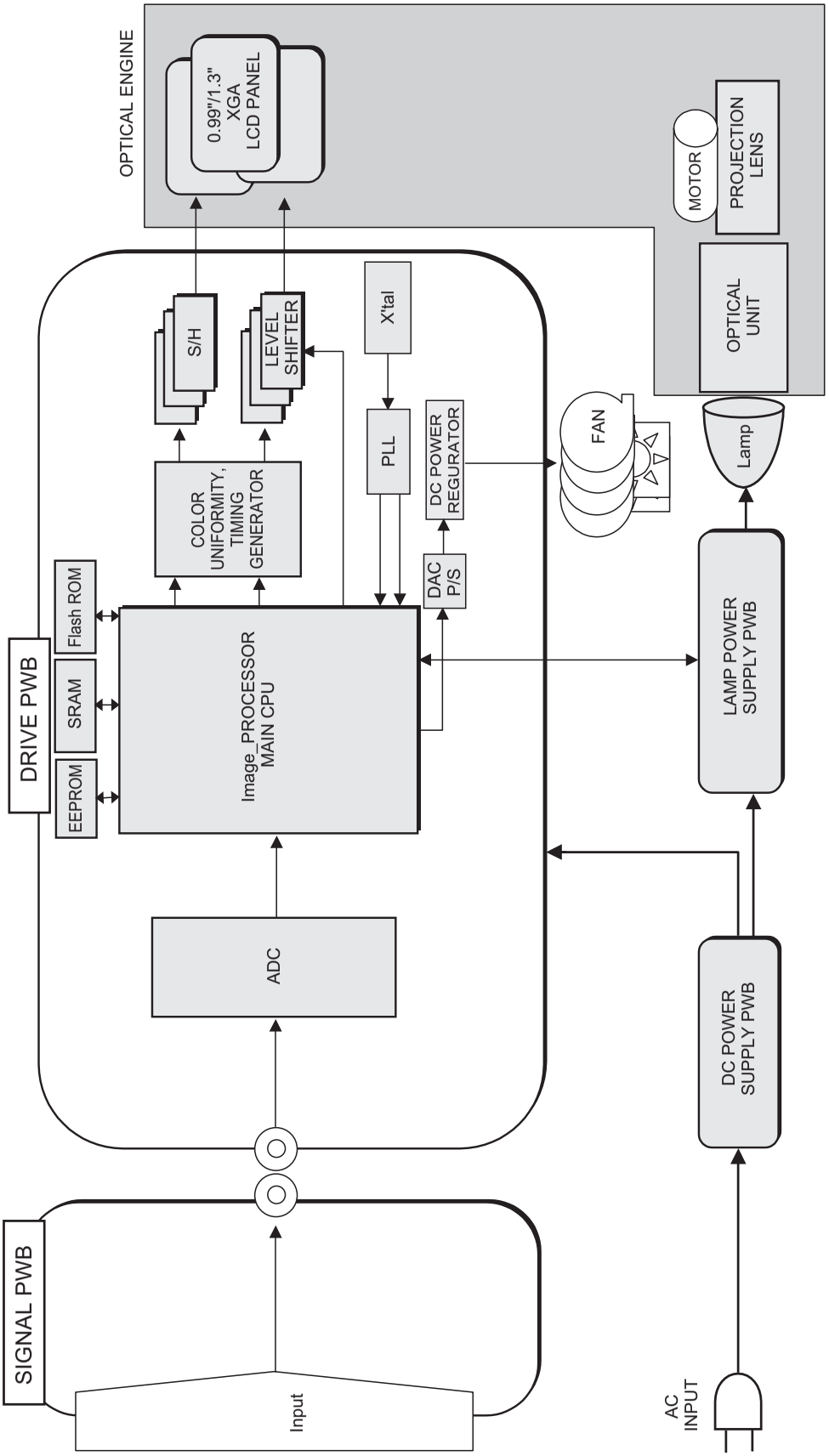
Command data chart

Names	Operation type		Header	CRC	Command data		
					Action	Type	Setting code
Color Balance B	Get		BE EF 03 06 00	45 D2	02 00	06 20	00 00
	Increment		BE EF 03 06 00	23 D2	04 00	06 20	00 00
	Decrement		BE EF 03 06 00	F2 D3	05 00	06 20	00 00
Keystone_V	Get		BE EF 03 06 00	B9 D3	02 00	07 20	00 00
	Increment		BE EF 03 06 00	DF D3	04 00	07 20	00 00
	Decrement		BE EF 03 06 00	0E D2	05 00	07 20	00 00
Keystone_H	Get		BE EF 03 06 00	E9 D0	02 00	0B 20	00 00
	Increment		BE EF 03 06 00	8F D0	04 00	0B 20	00 00
	Decrement		BE EF 03 06 00	5E D1	05 00	0B 20	00 00
Aspect	Set	4:3	BE EF 03 06 00	9E D0	01 00	08 20	00 00
		16:9	BE EF 03 06 00	0E D1	01 00	08 20	01 00
		Small	BE EF 03 06 00	FE D1	01 00	08 20	02 00
	Get		BE EF 03 06 00	AD D0	02 00	08 20	00 00
Picture Position at 16 : 9 or Small	Set	Default	BE EF 03 06 00	62 D1	01 00	09 20	00 00
		Bottom	BE EF 03 06 00	F2 D0	01 00	09 20	01 00
		Top	BE EF 03 06 00	02 D0	01 00	09 20	02 00
	Get		BE EF 03 06 00	51 D1	02 00	09 20	00 00
V.Position	Get		BE EF 03 06 00	0D 83	02 00	00 21	00 00
	Increment		BE EF 03 06 00	6B 83	04 00	00 21	00 00
	Decrement		BE EF 03 06 00	BA 82	05 00	00 21	00 00
H.Position	Get		BE EF 03 06 00	F1 82	02 00	01 21	00 00
	Increment		BE EF 03 06 00	97 82	04 00	01 21	00 00
	Decrement		BE EF 03 06 00	46 83	05 00	01 21	00 00
H.Size	Get		BE EF 03 06 00	B5 82	02 00	02 21	00 00
	Increment		BE EF 03 06 00	D3 82	04 00	02 21	00 00
	Decrement		BE EF 03 06 00	02 83	05 00	02 21	00 00
H.Phase	Get		BE EF 03 06 00	49 83	02 00	03 21	00 00
	Increment		BE EF 03 06 00	2F 83	04 00	03 21	00 00
	Decrement		BE EF 03 06 00	FE 82	05 00	03 21	00 00
Sharpness	Get		BE EF 03 06 00	F1 72	02 00	01 22	00 00
	Increment		BE EF 03 06 00	97 72	04 00	01 22	00 00
	Decrement		BE EF 03 06 00	46 73	05 00	01 22	00 00
Color	Get		BE EF 03 06 00	B5 72	02 00	02 22	00 00
	Increment		BE EF 03 06 00	D3 72	04 00	02 22	00 00
	Decrement		BE EF 03 06 00	02 73	05 00	02 22	00 00
Tint	Get		BE EF 03 06 00	49 73	02 00	03 22	00 00
	Increment		BE EF 03 06 00	2F 73	04 00	03 22	00 00
	Decrement		BE EF 03 06 00	FE 72	05 00	03 22	00 00
BNC	Set	RGB	BE EF 03 06 00	C2 D7	01 00	11 20	00 00
		Component	BE EF 03 06 00	52 D6	01 00	11 20	01 00
	Get		BE EF 03 06 00	F1 D7	02 00	11 20	00 00
Video Format	Set	Auto	BE EF 03 06 00	9E 75	01 00	00 22	0A 00
		NTSC	BE EF 03 06 00	FE 71	01 00	00 22	04 00
		PAL	BE EF 03 06 00	6E 70	01 00	00 22	05 00
		SECAM	BE EF 03 06 00	6E 75	01 00	00 22	09 00
		NTSC 4.43	BE EF 03 06 00	5E 72	01 00	00 22	02 00
		M-PAL	BE EF 03 06 00	FE 74	01 00	00 22	08 00
		N-PAL	BE EF 03 06 00	0E 71	01 00	00 22	07 00
	Get		BE EF 03 06 00	0D 73	02 00	00 22	00 00
HDTV	Set	1080i	BE EF 03 06 00	F2 73	01 00	05 22	00 00
		1035i	BE EF 03 06 00	62 72	01 00	05 22	01 00
	Get		BE EF 03 06 00	C1 73	02 00	05 22	00 00

Command data chart

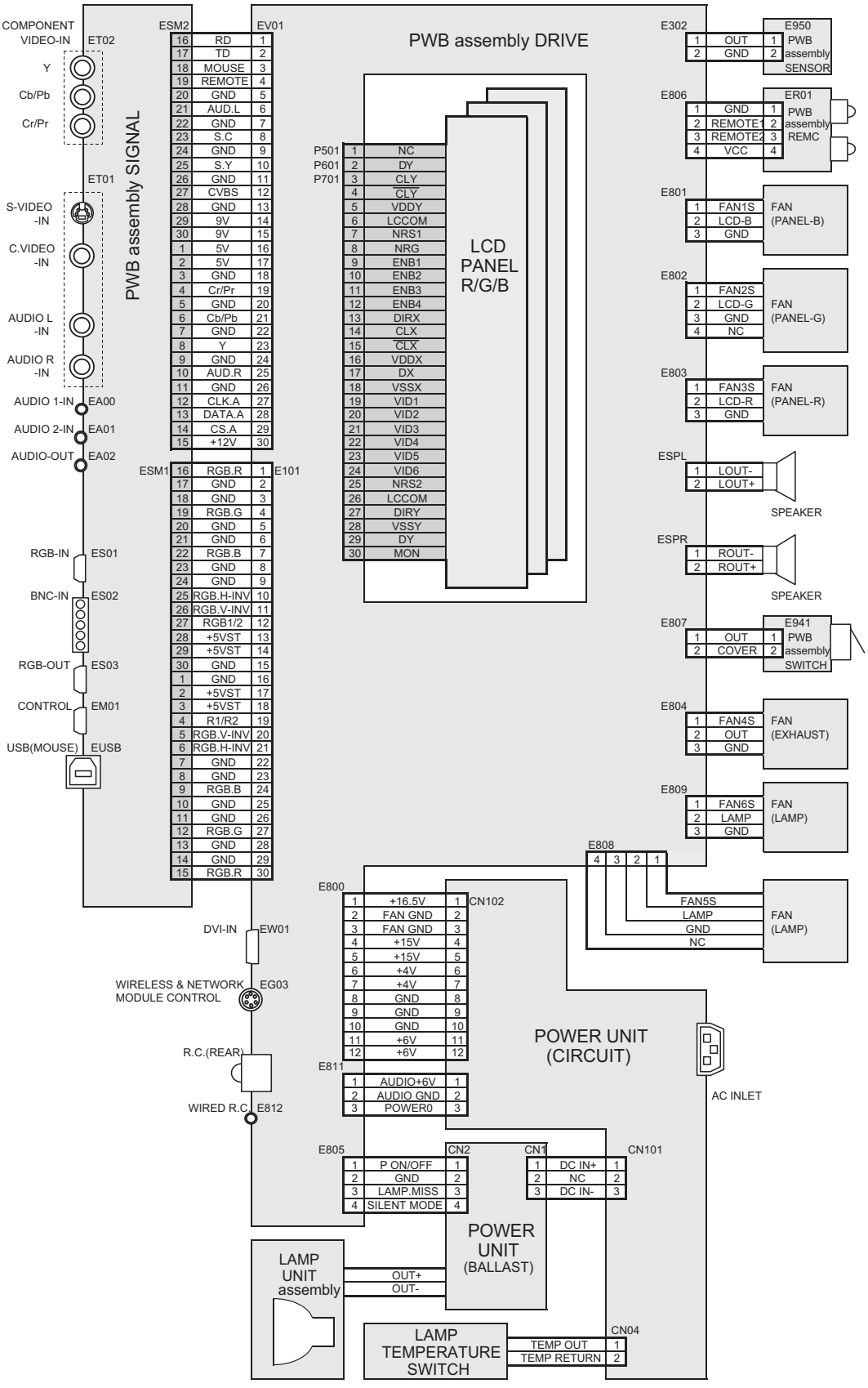
Names	Operation type		Header	CRC	Command data		
					Action	Type	Setting code
Sync on G	Set	off	BE EF 03 06 00	CB D0	01 00	08 30	01 00
		on	BE EF 03 06 00	5B D1	01 00	08 30	00 00
	Get		BE EF 03 06 00	68 D1	02 00	08 30	00 00
PinP Size	Set	off	BE EF 03 06 00	FE 22	01 00	00 23	00 00
		Large	BE EF 03 06 00	6E 23	01 00	00 23	01 00
		Small	BE EF 03 06 00	9E 23	01 00	00 23	02 00
	Get		BE EF 03 06 00	CD 22	02 00	00 23	00 00
PinP Position	Set	Upper left	BE EF 03 06 00	02 23	01 00	01 23	00 00
		Upper right	BE EF 03 06 00	92 22	01 00	01 23	01 00
		Bottom left	BE EF 03 06 00	62 22	01 00	01 23	02 00
		Bottom right	BE EF 03 06 00	F2 23	01 00	01 23	03 00
	Get		BE EF 03 06 00	31 23	02 00	01 23	00 00
PinP Audio ch	Set	RGB	BE EF 03 06 00	BA 22	01 00	03 23	00 00
		Video	BE EF 03 06 00	2A 23	01 00	03 23	01 00
	Get		BE EF 03 06 00	89 22	02 00	03 23	00 00
PinP Input	Set	Video	BE EF 03 06 00	D6 22	01 00	02 23	01 00
		S-Video	BE EF 03 06 00	26 22	01 00	02 23	02 00
	Get		BE EF 03 06 00	75 23	02 00	02 23	00 00
WHISPER	Set	NORMAL	BE EF 03 06 00	3B 23	01 00	00 33	00 00
		WHISPER	BE EF 03 06 00	AB 22	01 00	00 33	01 00
	Get		BE EF 03 06 00	08 23	02 00	00 33	00 00
GAMMA	Set	NORMAL	BE EF 03 06 00	C7 F0	01 00	A1 30	00 00
		CINEMA	BE EF 03 06 00	57 F1	01 00	A1 30	01 00
		DYNAMIC	BE EF 03 06 00	A7 F1	01 00	A1 30	02 00
	Get		BE EF 03 06 00	F4 F0	02 00	A1 30	00 00
Over Scan	Set	Large	BE EF 03 06 00	C2 71	01 00	09 22	02 00
		Middle	BE EF 03 06 00	32 71	01 00	09 22	01 00
		Small	BE EF 03 06 00	A2 70	01 00	09 22	00 00
	Get		BE EF 03 06 00	91 70	02 00	09 22	00 00
MyScreen Size	Set	Full	BE EF 03 06 00	43 D6	01 00	12 30	00 00
		X1	BE EF 03 06 00	D3 D7	01 00	12 30	01 00
	Get		BE EF 03 06 00	70 D6	02 00	12 30	00 00
MyScreen Lock	Set	off	BE EF 03 06 00	3B EF	01 00	C0 30	00 00
		on	BE EF 03 06 00	AB EE	01 00	C0 30	01 00
	Get		BE EF 03 06 00	08 EF	02 00	C0 30	00 00
Lamp Time	Get		BE EF 03 06 00	C2 FF	02 00	90 10	00 00
Filter Time	Get		BE EF 03 06 00	C2 F0	02 00	A0 10	00 00
IR Remote Front	Set	off	BE EF 03 06 00	FF 32	01 00	00 26	00 00
		on	BE EF 03 06 00	6F 33	01 00	00 26	01 00
	Get		BE EF 03 06 00	CC 32	02 00	00 26	00 00
IR Remote Rear	Set	off	BE EF 03 06 00	03 33	01 00	01 26	00 00
		on	BE EF 03 06 00	93 32	01 00	01 26	01 00
	Get		BE EF 03 06 00	30 33	02 00	01 26	00 00
IR Remote Top	Set	off	BE EF 03 06 00	47 33	01 00	02 26	00 00
		on	BE EF 03 06 00	D7 32	01 00	02 26	01 00
	Get		BE EF 03 06 00	74 33	02 00	02 26	00 00

11. Block diagram



Block diagram (C8X/C8XM)

12. Connector connection diagram



Connector connection diagram (C8X/C8XM)

Basic Circuit Diagram List

PWB assembly SENSOR
PWB assembly REMOTE CONTROL
PWB assembly LIMIT SWITCH

POWER UNIT (BALLAST)

POWER UNIT (CIRCUIT)

PWB assembly DRIVE 1

PWB assembly DRIVE 2

PWB assembly DRIVE 3

PWB assembly DRIVE 4

PWB assembly DRIVE 5

PWB assembly DRIVE 6

PWB assembly DRIVE 7

PWB assembly DRIVE 8

PWB assembly DRIVE 9

PWB assembly DRIVE 10

PWB assembly DRIVE 11

PWB assembly DRIVE 12

PWB assembly DRIVE 13

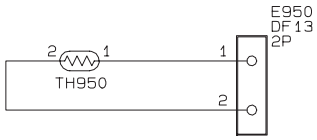
PWB assembly SIGNAL 1

PWB assembly SIGNAL 2

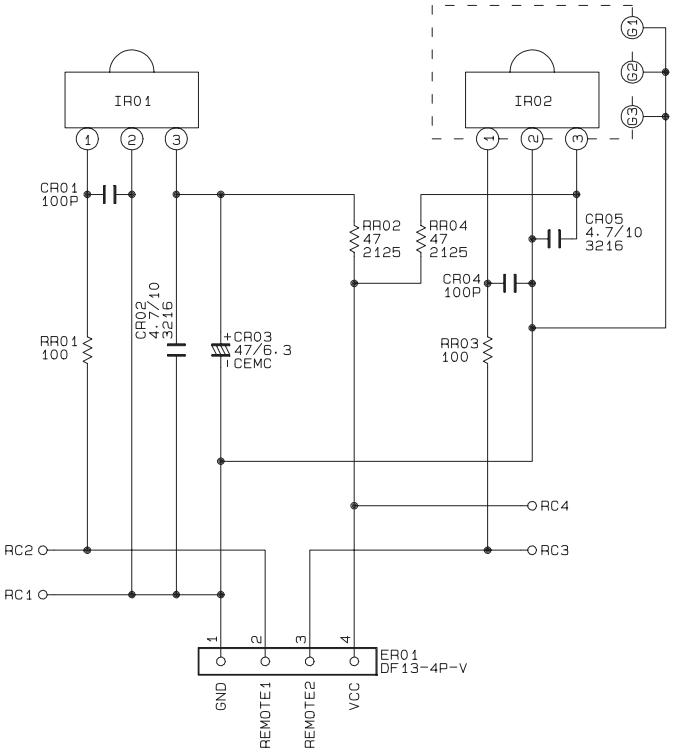
PWB assembly SIGNAL 3

13. Basic circuit diagram

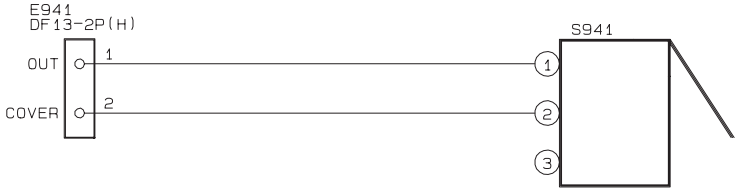
Parts with hatching are not mounted.



PWB assembly SENSOR (C8X/C8XM)

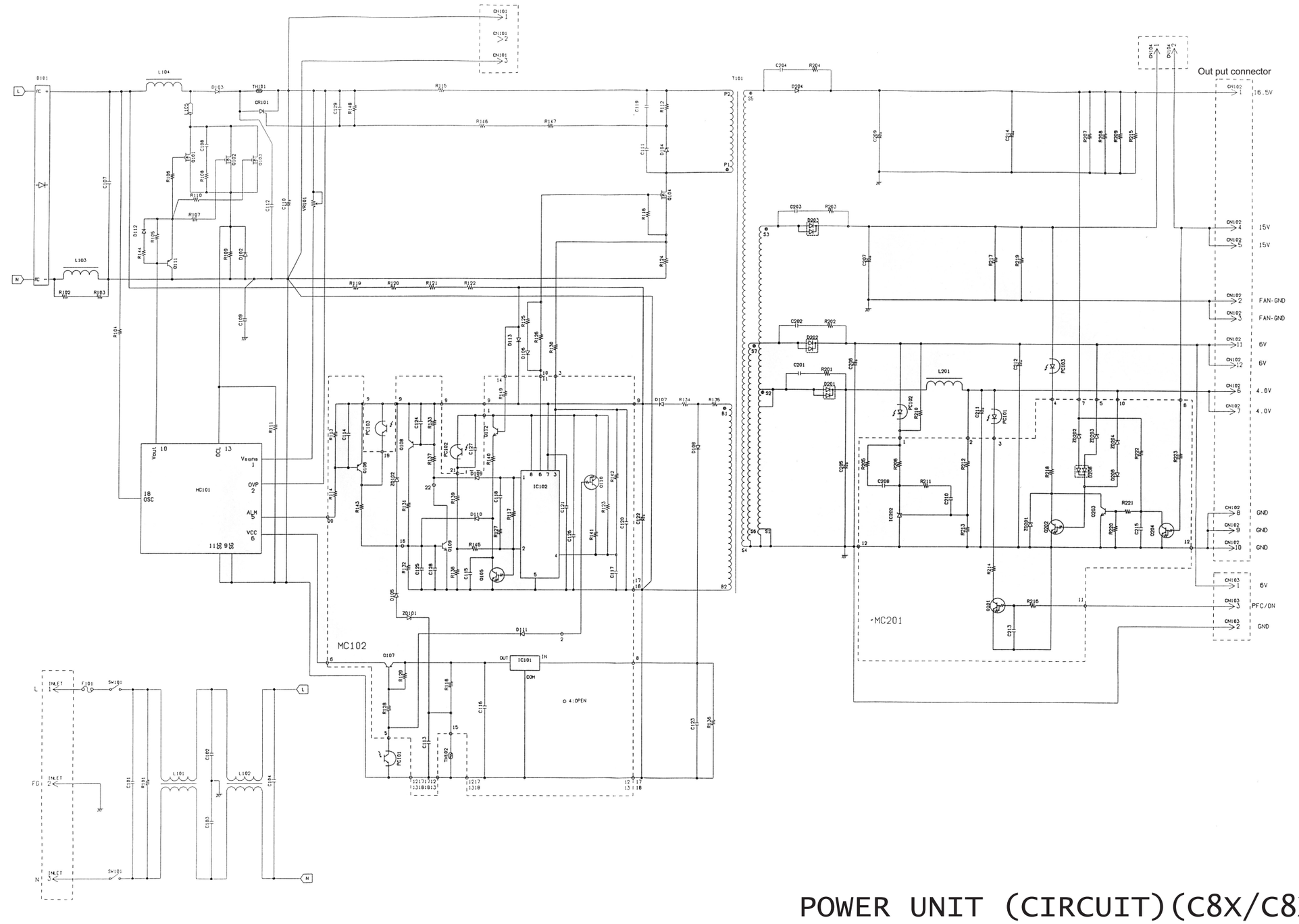


PWB assembly REMOTE CONTROL (C8X/C8XM)



PWB assembly LIMIT SWITCH (C8X/C8XM)

POWER UNIT (BALLAST) (C8X/C8XM)

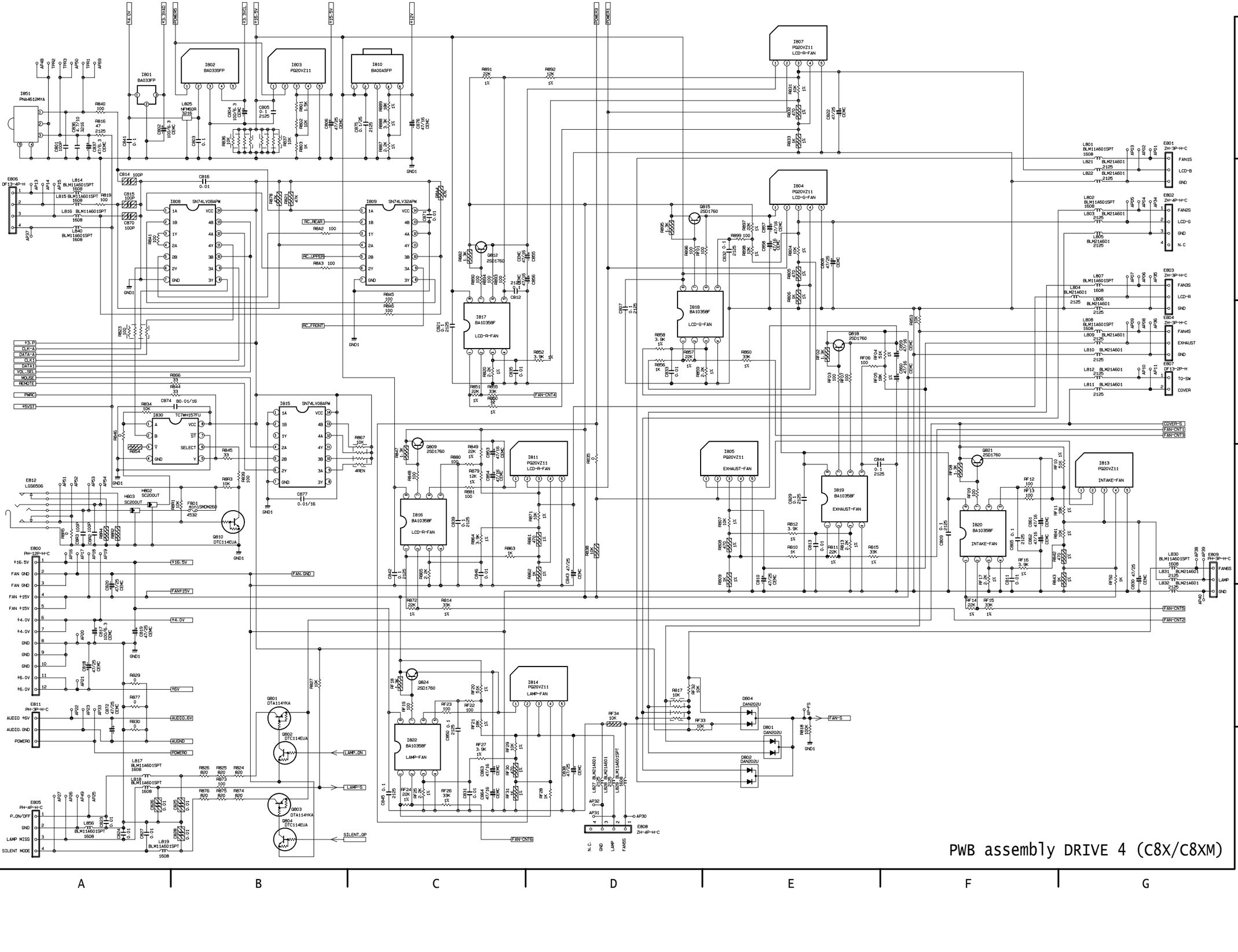


POWER UNIT (CIRCUIT)(C8X/C8XM)

PWB assembly DRIVE 1 (C8X/C8XM)

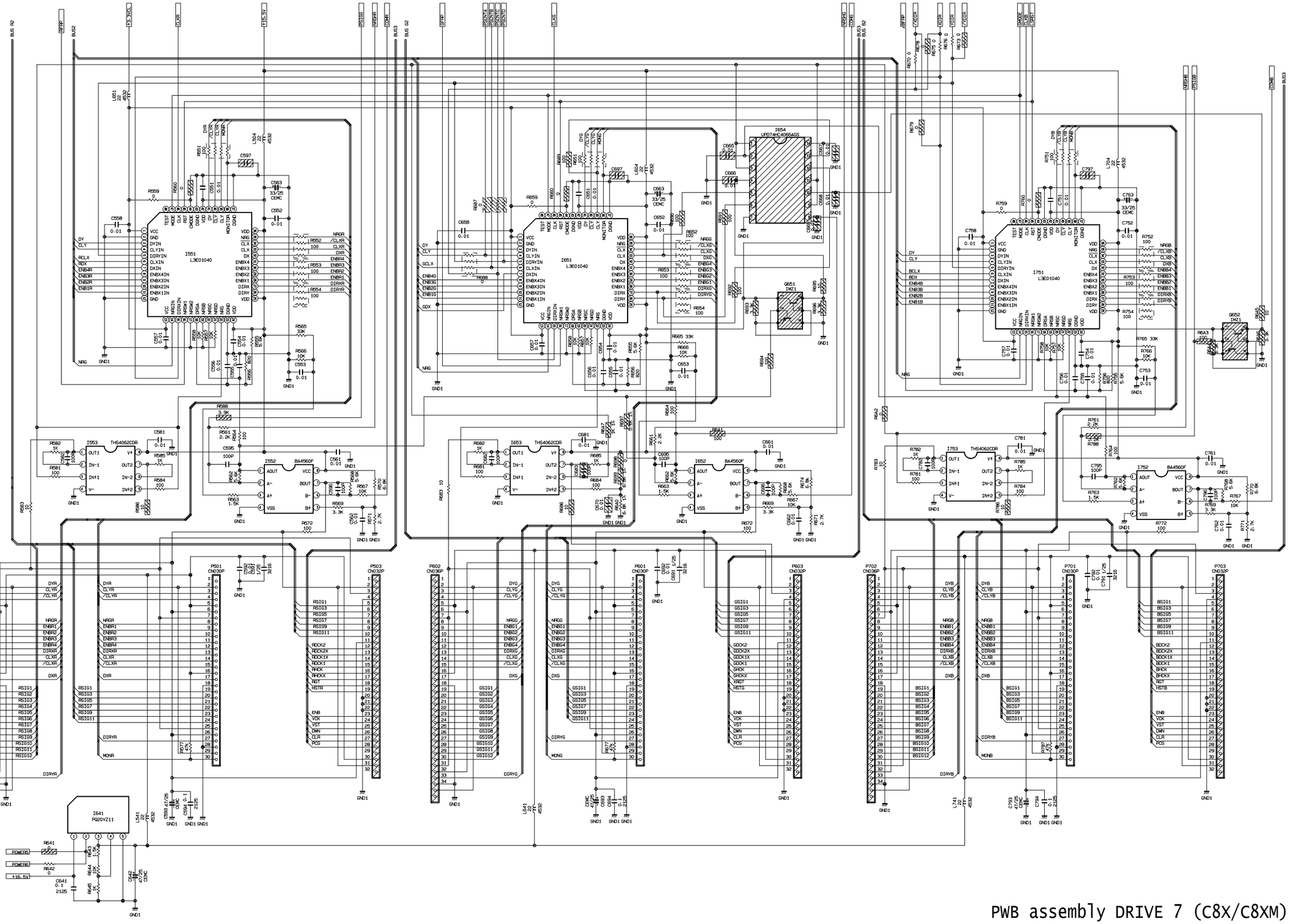
PWB assembly DRIVE 2 (C8X/C8XM)

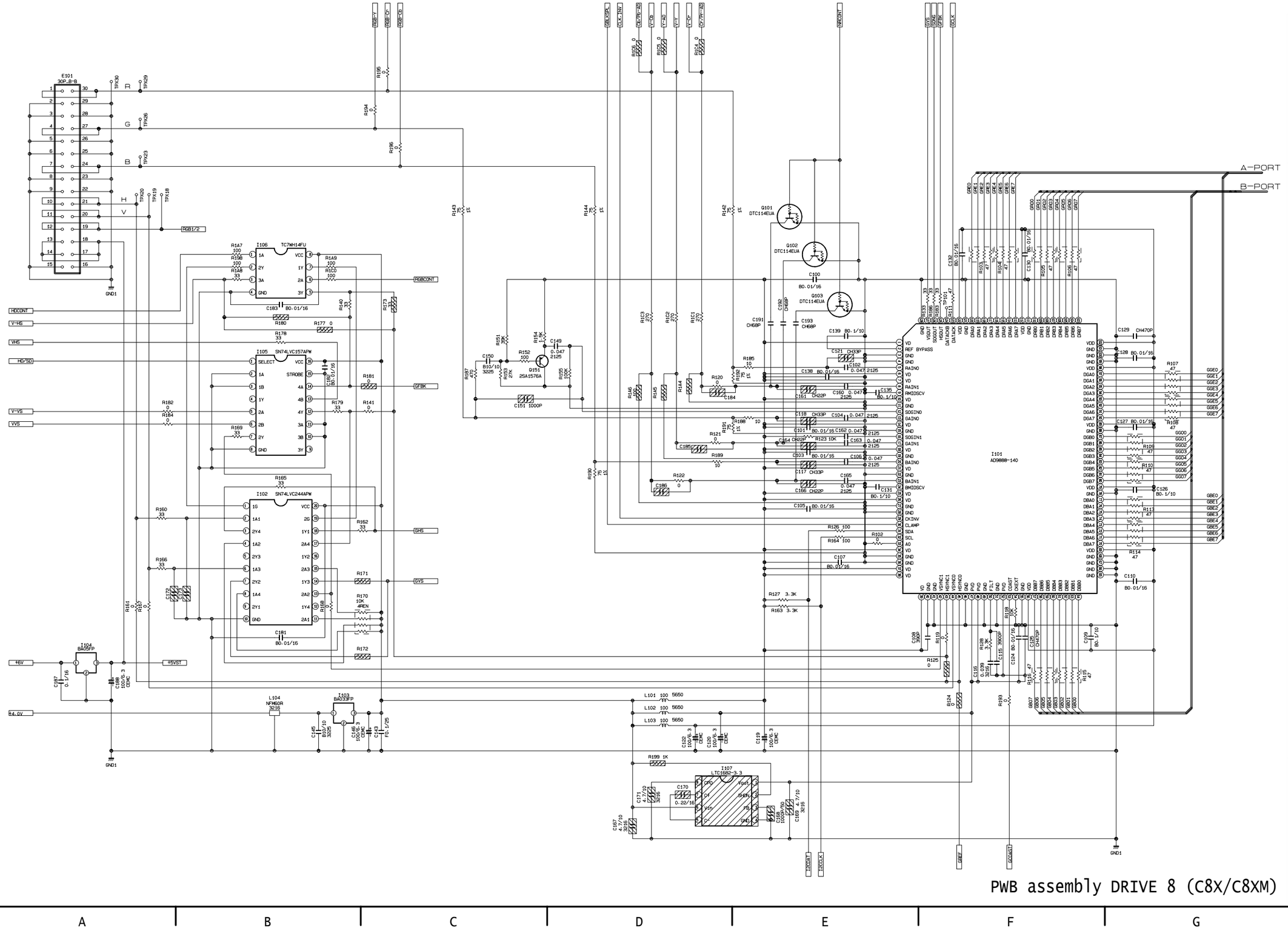
PWB assembly DRIVE 3 (C8X/C8XM)


+4.0V
+3.3VD
POWER5
+3.3VL
+16.5V
+12V
POWER3
POWER1
I801 BA033FP
I802 BA033SFP
I803 PG20VZ11
I810 BA00ASFP
I851 PNA4612MYA
I807 PG20VZ11 LCD-R-FAN
I804 PG20VZ11 LCD-G-FAN
I805 PG20VZ11 EXHAUST-FAN
I813 PG20VZ11 INTAKE-FAN
I814 PG20VZ11 LAMP-FAN
I808 SN74LV08APW
I809 SN74LV32APW
I815 SN74LV08APW
I816 BA10358F LCD-R-FAN
I817 BA10358F LCD-R-FAN
I818 BA10358F LCD-G-FAN
I819 BA10358F EXHAUST-FAN
I820 BA10358F INTAKE-FAN
I822 BA10358F LAMP-FAN
I830 TC7WH157FU
Q801 DTA114YKA
Q802 DTC114EUA
Q803 DTA114YKA
Q804 DTC114EUA
Q809 2SD1760
Q810 DTC114EUA
Q812 2SD1760
Q815 2SD1760
Q818 2SD1760
Q821 2SD1760
Q824 2SD1760
D801 DAN202U
D802 DAN202U
D804 DAN202U
E800 PH-12P-H-C
E801 ZH-3P-H-C FAN1S LCD-B GND
E802 ZH-4P-H-C FAN2S LCD-G GND N.C
E803 ZH-3P-H-C FAN3S LCD-R GND
E804 ZH-3P-H-C FAN4S EXHAUST GND
E805 PH-4P-H-C P.ON/OFF GND LAMP MISS SILENT MODE
E807 DF13-2P-H TO-SW COVER
E808 ZH-4P-H-C N.C GND LAMP FAN5S
E809 PH-3P-H-C FAN5S LAMP GND
E811 PH-3P-H-C AUDIO +6V AUDIO GND POWER0
E812 LG5B506
RC_REAR
RC_UPPER
RC_FRONT
FAN-CNT4
FAN-CNT6
FAN.GND
FAN+15V
+16.5V
+4.0V
+6V
AUDIO.6V
AUGND
POWER0
LAMP-ON
LAMP-S
SILENT.OP
COVER-S
FAN-CNT1
FAN-CNT3
FAN-CNT5
FAN-CNT2
FAN-S
+3.3D
CLK-A1
DATA-A1
CLK1
DATA1
VOL_SEL
MOUSE
REMOTE
PWRC
+5VST
PWRC
GND1
PWRC
PWRC
PWRC

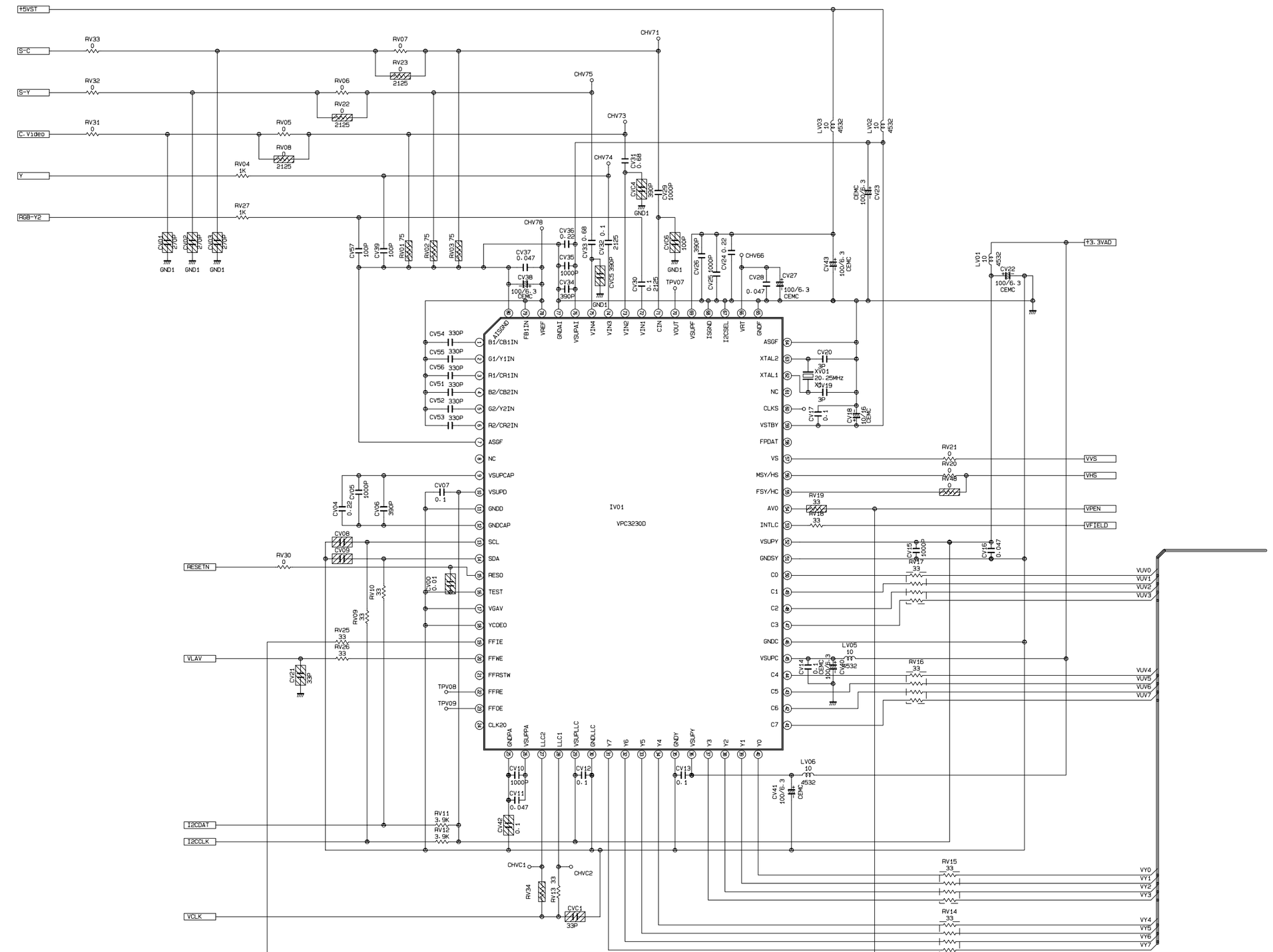
PWB assembly DRIVE 5 (C8X/C8XM)

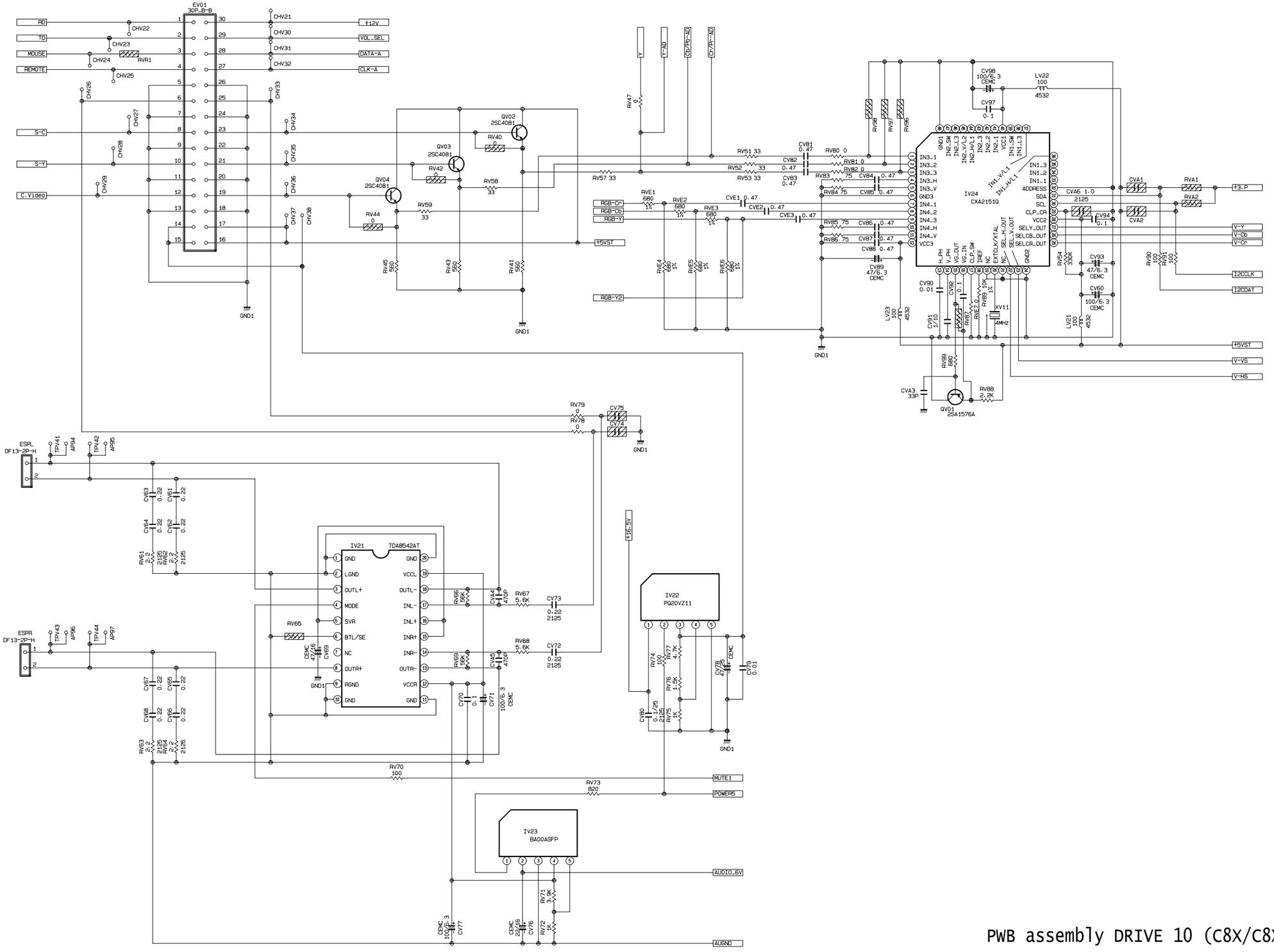
PWB assembly DRIVE 6 (C8X/C8XM)


PWB assembly DRIVE 7 (C8X/C8XM)
I651 L3E01040
I654 UPD74HC4066AGS
I751 L3E01040
I652 BA4560F
I752 BA4560F
I653 THS4062CDR
I753 THS4062CDR
I641 PQ20VZ11
Q651 IMZ1
Q652 IMZ1
P502 CN036P
P501 CN030P
P503 CN032P
P602 CN036P
P601 CN030P
P603 CN032P
P702 CN036P
P701 CN030P
P703 CN032P
POWERG
POWERB
+16.5V
GND1
BUS 52
BUS 53



PWB assembly DRIVE 8 (C8X/C8XM)


+5VST
S-C
S-Y
C.Video
Y
RGB-Y2
RESETN
VLAV
VCLK
I2CDAT
I2CCLK
IVO1
VPC3230D
+3.3VAD
VVS
VHS
VPEN
VFIELD
VUV0
VUV1
VUV2
VUV3
VUV4
VUV5
VUV6
VUV7
VY0
VY1
VY2
VY3
VY4
VY5
VY6
VY7
TPV07
TPV08
TPV09
CHV71
CHV75
CHV73
CHV74
CHV78
CHV66
CHVC1
CHVC2
GND1
B1/CB1IN
G1/Y1IN
R1/CR1IN
B2/CB2IN
G2/Y2IN
R2/CR2IN
ASGF
NC
VSUPCAP
VSUPD
GNDD
GNDCAP
SCL
SDA
RESO
TEST
VGAV
YCOEO
FFIE
FFWE
FFRSTW
FFRE
FFOE
CLK20
XTAL2
XTAL1
CLKS
VSTBY
FPDAT
VS
MSY/HS
FSY/HC
AVO
INTLC
VSUPY
GNDSY
C0
C1
C2
C3
GNDC
VSUPC
C4
C5
C6
C7
XV01
20.25MHz
PWB assembly DRIVE 9 (C8X/C8XM)



PWB assembly DRIVE 10 (C8X/C8XM)

B-PORT

A-PORT

IG12 SN74LVC244APW

IG13 SN74LVC244APW

IG14 SN74LVC244APW

IG15 SN74LVC244APW

IG10 SN74LVC244APW

IG08 SN74LVC244APW

IG05 SN74LVC244APW

IG01 SII161B

IG02 24LC21A-I/SN

EG03 DVI-A

DVIGND

+5V

+4.0V

DVCLKP

DVISTATUS

DVIPWDN

DVI

HPD

DVCLK+

DVCLK-

DDATA2-

DDATA1-

DDATA0-

DDATA2+

DDATA1+

DDATA0+

PVCC

AVCC

VCC

DVCC

VDD

GPBK

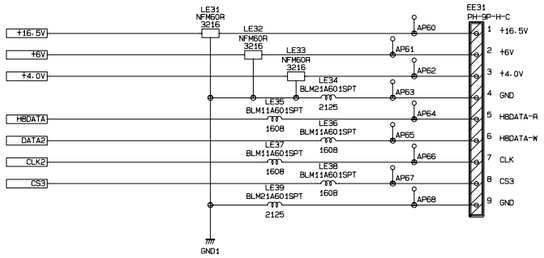
GHS

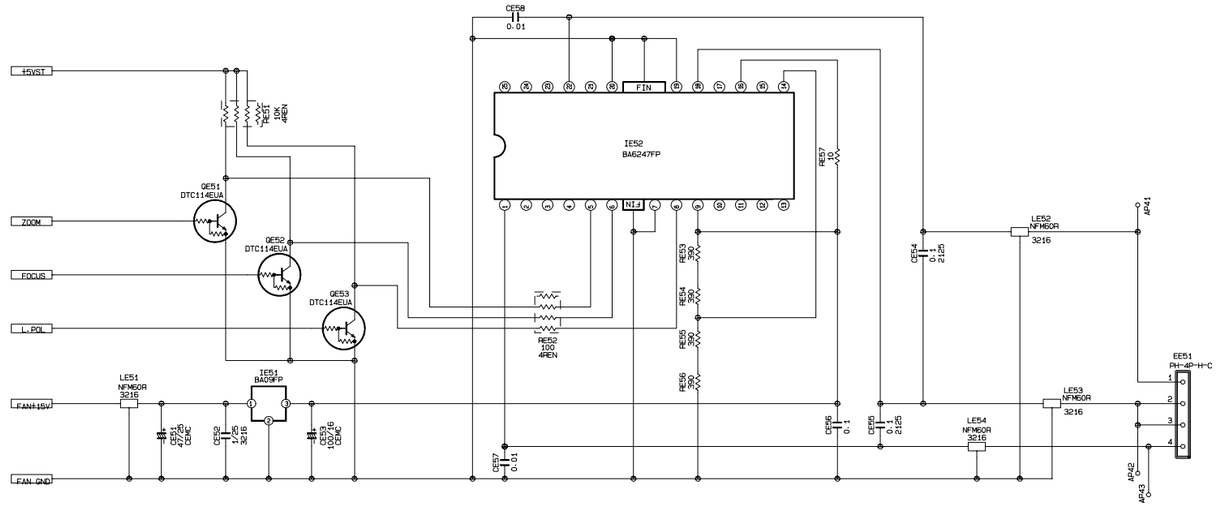
GVS

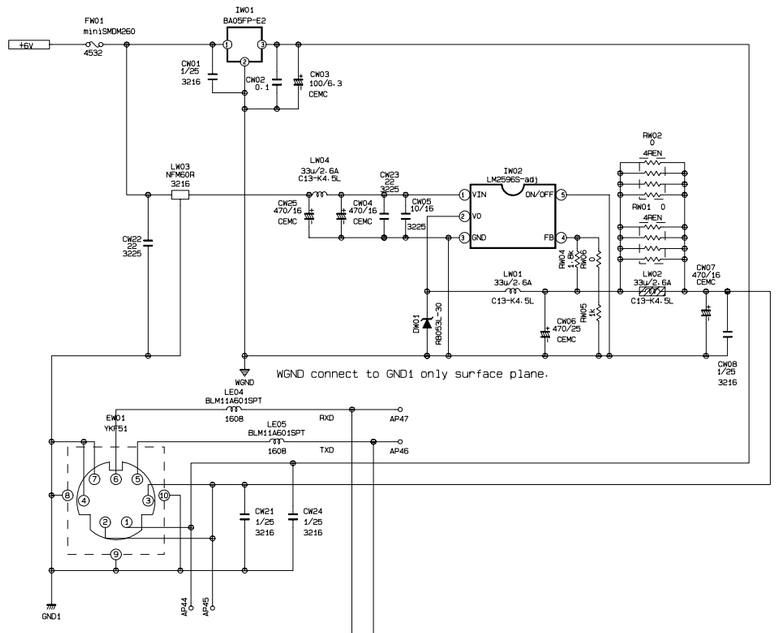
GPEN

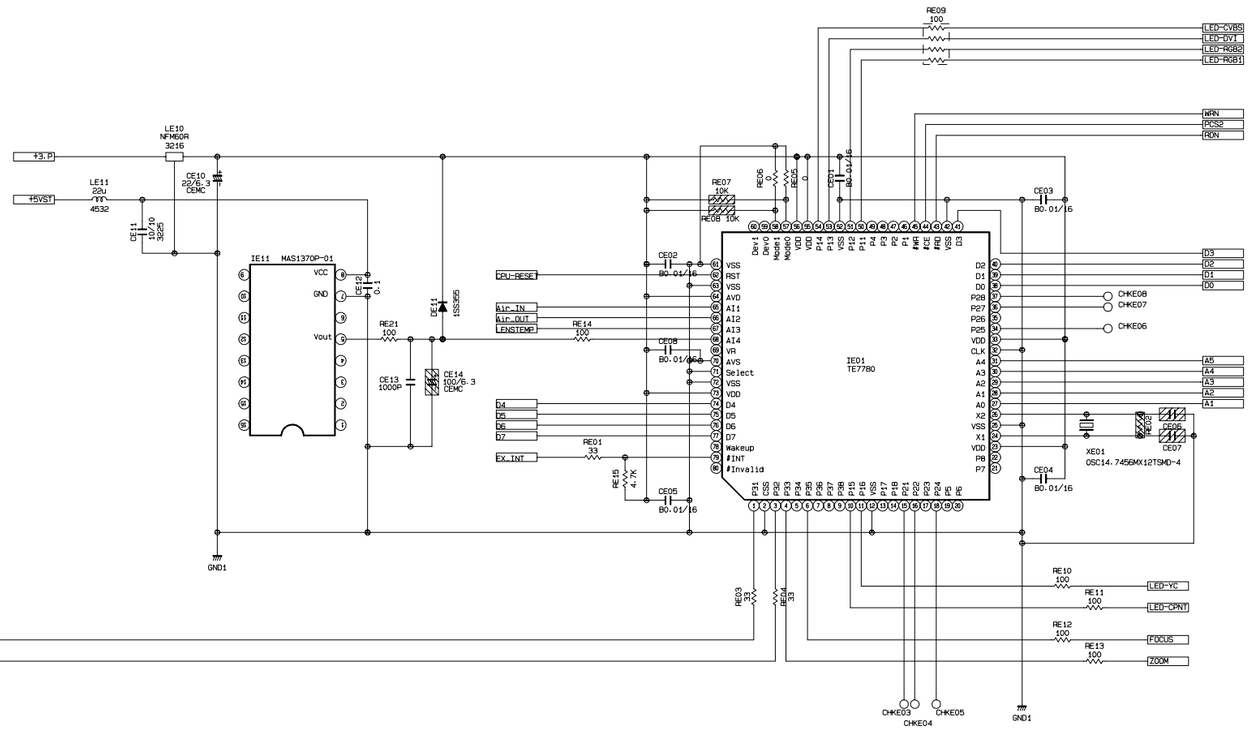
GCLK

PWB assembly DRIVE 11 (C8X/C8XM)

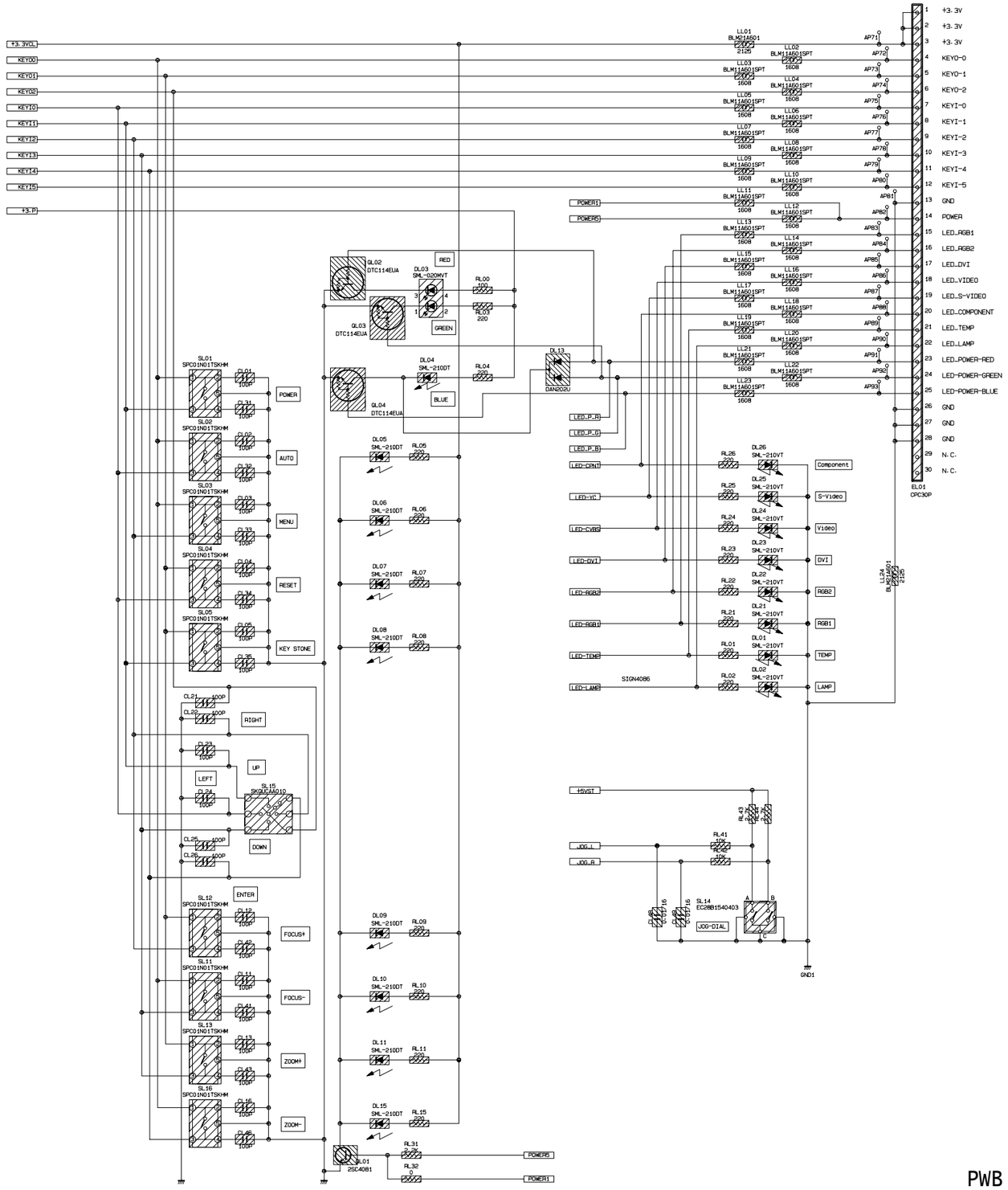








PWB assembly DRIVE 12 (C8X/C8XM)



PWB assembly DRIVE 13 (C8X/C8XM)

RGB IN1

RGB IN2

RGB OUT

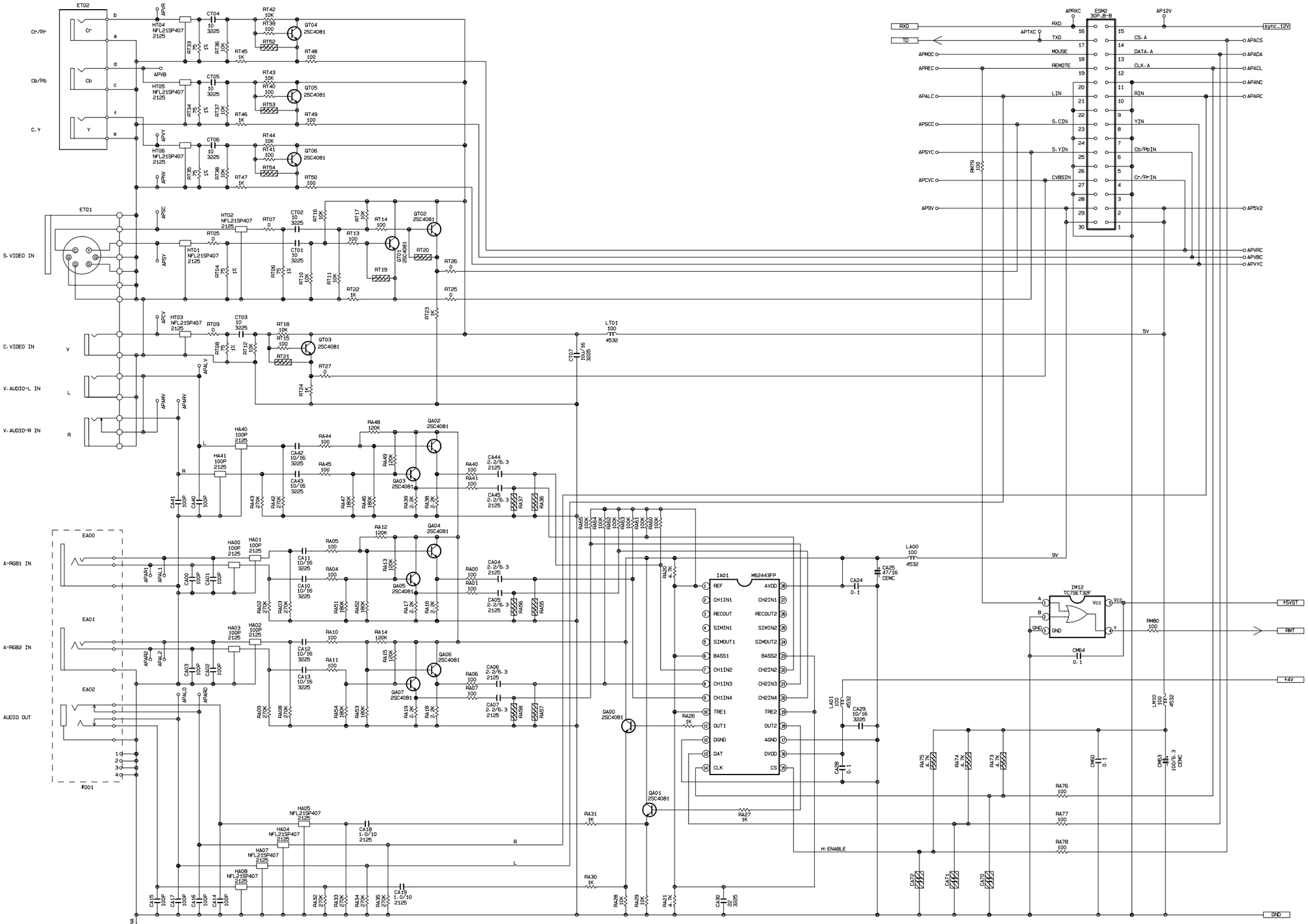
L:RGB1/H:RGB2

R1/R2

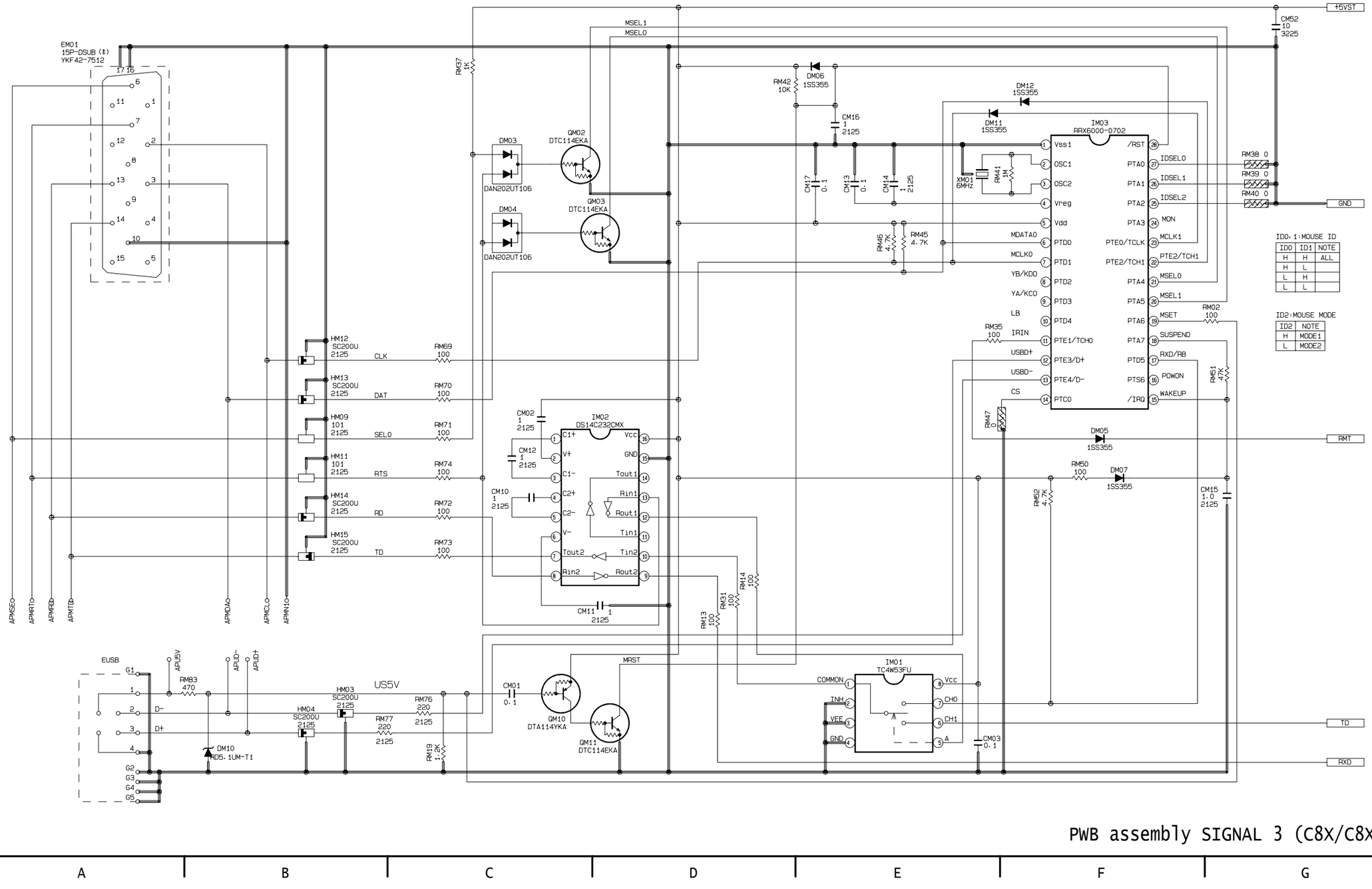
RGB.H-INV

RGB.V-INV

PWB assembly SIGNAL 1 (C8X/C8XM)



PWB assembly SIGNAL 2 (C8X/C8XM)



PWB assembly SIGNAL 3 (C8X/C8XM)

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